SEQUENCE LISTING

<110> F. Hoffmann-La Roche AG

<120> RA antigenic peptides

<130> 21796

<160> 141

<170> PatentIn version 3.2

<210> 1
<211> 14
<212> PRT
<213> Homo sapiens

<400> 1

Gly Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg
1 5 10

<210> 2
<211> 17
<212> PRT
<213> Homo sapiens

<400> 2

Gly Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp
1 5 10 15

Ala

<210> 3
<211> 16
<212> PRT
<213> Homo sapiens

<400> 3

Gly Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp
1 5 10 15

<210> 4
<211> 16
<212> PRT
<213> Homo sapiens

<400> 4

Ile Asn Asn Gln Leu Thr Leu Asp Ser Asn Thr Lys Tyr Phe His Lys
1 5 10 15

<210> 5
<211> 17
<212> PRT
<213> Homo sapiens

<400> 5

Ile Asn Asn Gln Leu Thr Leu Asp Ser Asn Thr Lys Tyr Phe His Lys
1 5 10 15

Leu

<210> 6
<211> 19
<212> PRT
<213> Homo sapiens

<400> 6

Met Pro Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser
1 5 10 15

Gly Arg Lys

<210> 7
<211> 18
<212> PRT
<213> Homo sapiens

<400> 7

Met Pro Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser
1 5 10 15

Gly Arg

<210> 8
<211> 17
<212> PRT
<213> Homo sapiens

<400> 8

Met Pro Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser
1 5 10 15

Gly

<210> 9
<211> 14
<212> PRT
<213> Homo sapiens

<400> 9

Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly
1 5 10

<210> 10
<211> 15
<212> PRT
<213> Homo sapiens

<400> 10

Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly
1 5 10 15

<210> 11
<211> 15
<212> PRT
<213> Homo sapiens

<400> 11

Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly Arg
1 5 10 15

<210> 12
<211> 16
<212> PRT
<213> Homo sapiens

<400> 12

Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly Arg Lys
1 5 10 15

<210> 13
<211> 15
<212> PRT
<213> Homo sapiens

<400> 13

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu
1 5 10 15

<210> 14
<211> 16
<212> PRT
<213> Homo sapiens

<400> 14

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met
1 5 10 15

<210> 15
<211> 14
<212> PRT
<213> Homo sapiens

<400> 15

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu
1 5 10

<210> 16
<211> 18
<212> PRT
<213> Homo sapiens

<400> 16

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met
1 5 10 15

Pro Ser

<210> 17
<211> 13
<212> PRT
<213> Homo sapiens

<400> 17

His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu
1 5 10

<210> 18
<211> 12
<212> PRT
<213> Homo sapiens

<400> 18

Gly His Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp
1 5 10

<210> 19
<211> 19
<212> PRT
<213> Homo sapiens

<400> 19

Gly Val Asp Arg Tyr Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser
1 5 10 15

Asp Arg Asn

<210> 20
<211> 15
<212> PRT
<213> Homo sapiens

<400> 20

Arg Tyr Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg
1 5 10 15

<210> 21
<211> 14
<212> PRT
<213> Homo sapiens

<400> 21

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg Asn
1 5 10

<210> 22
<211> 15
<212> PRT
<213> Homo sapiens

<400> 22

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg Asn Thr
1 5 10 15

<210> 23
<211> 13
<212> PRT
<213> Homo sapiens

<400> 23

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg
1 5 10

<210> 24
<211> 16
<212> PRT
<213> Homo sapiens

<400> 24

Gly Ser Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg Ile Leu
1 5 10 15

<210> 25
<211> 12
<212> PRT
<213> Homo sapiens

<400> 25

Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg
1 5 10

<210> 26
<211> 14
<212> PRT
<213> Homo sapiens

<400> 26

Gly Ser Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg
1 5 10

<210> 27
<211> 14
<212> PRT
<213> Homo sapiens

<400> 27

Arg Glu Ile Lys Ser Gln Gln Ser Glu Val Thr Arg Ile Leu
1 5 10

<210> 28
<211> 17
<212> PRT
<213> Homo sapiens

<400> 28

Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser Pro Pro Ala Arg
1 5 10 15

Asn

<210> 29
<211> 19
<212> PRT
<213> Homo sapiens

<400> 29

Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser Pro Pro Ala Arg
1 5 10 15

Asn Leu Lys

<210> 30
<211> 16
<212> PRT
<213> Homo sapiens

<400> 30

Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser Pro Pro Ala Arg
1 5 10 15

<210> 31
<211> 18
<212> PRT
<213> Homo sapiens

<400> 31

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile Cys
1 5 10 15

Pro Gly

<210> 32
<211> 17
<212> PRT
<213> Homo sapiens

<400> 32

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile Cys
1 5 10 15

Pro

<210> 33
<211> 13
<212> PRT
<213> Homo sapiens

<400> 33

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala
1 5 10

<210> 34

<211> 14
<212> PRT
<213> Homo sapiens

<400> 34

Gly Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala
1 5 10

<210> 35
<211> 15
<212> PRT
<213> Homo sapiens

<400> 35

Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile
1 5 10 15

<210> 36
<211> 18
<212> PRT
<213> Homo sapiens

<400> 36

Ile Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu
1 5 10 15

Met Gly

<210> 37
<211> 15
<212> PRT
<213> Homo sapiens

<400> 37

Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu Met
1 5 10 15

<210> 38
<211> 16
<212> PRT
<213> Homo sapiens

<400> 38

Ile Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu
1 5 10 15

<210> 39
<211> 15
<212> PRT
<213> Homo sapiens

<400> 39

Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro Gln Glu
1 5 10 15

<210> 40

<211> 261
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P13284
<309> 1990-01-01
<313> (1)..(261)

<400> 40

Met Asp Ser Arg His Thr Phe Ala Pro Ala Ala Met Thr Leu Ser Pro
1 5 10 15

Leu Leu Leu Phe Leu Pro Pro Leu Leu Leu Leu Asp Val Pro Thr
20 25 30

Ala Ala Val Gln Ala Ser Pro Leu Gln Ala Leu Asp Phe Phe Gly Asn
35 40 45

Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn Leu Tyr Leu Arg Gly Pro
50 55 60

Leu Lys Lys Ser Asn Ala Pro Leu Val Asn Val Thr Leu Tyr Tyr Glu
65 70 75 80

Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu Ile Arg Glu Leu Phe Pro
85 90 95

Thr Trp Leu Leu Val Met Glu Ile Leu Asn Val Thr Leu Val Pro Tyr
100 105 110

Gly Asn Ala Gln Glu Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys
115 120 125

Gln His Gly Glu Glu Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val
130 135 140

Leu Asp Glu Leu Asp Met Glu Leu Ala Phe Leu Thr Ile Val Cys Met
145 150 155 160

Glu Glu Phe Glu Asp Met Glu Arg Ser Leu Pro Leu Cys Leu Gln Leu
165 170 175

Tyr Ala Pro Gly Leu Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly
180 185 190

Asp Arg Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp Ala
195 200 205

Leu Gln Pro Pro His Glu Tyr Val Pro Trp Val Thr Val Asn Gly Lys
210 215 220

Pro Leu Glu Asp Gln Thr Gln Leu Leu Thr Leu Val Cys Gln Leu Tyr
225 230 235 240

Gln Gly Lys Lys Pro Asp Val Cys Pro Ser Ser Thr Ser Ser Leu Arg
245 250 255

Ser Val Cys Phe Lys
260

<210> 41
<211> 4563
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P04114
<309> 1986-11-01
<313> (1)..(4563)

<400> 41

Met Asp Pro Pro Arg Pro Ala Leu Leu Ala Leu Leu Ala Leu Pro Ala
1 5 10 15

Leu Leu Leu Leu Leu Leu Ala Gly Ala Arg Ala Glu Glu Glu Met Leu
20 25 30

Glu Asn Val Ser Leu Val Cys Pro Lys Asp Ala Thr Arg Phe Lys His
35 40 45

Leu Arg Lys Tyr Thr Tyr Asn Tyr Glu Ala Glu Ser Ser Ser Gly Val
50 55 60

Pro Gly Thr Ala Asp Ser Arg Ser Ala Thr Arg Ile Asn Cys Lys Val
65 70 75 80

Glu Leu Glu Val Pro Gln Leu Cys Ser Phe Ile Leu Lys Thr Ser Gln
85 90 95

Cys Thr Leu Lys Glu Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu
100 105 110

Leu Lys Lys Thr Lys Asn Ser Glu Glu Phe Ala Ala Ala Met Ser Arg
115 120 125

Tyr Glu Leu Lys Leu Ala Ile Pro Glu Gly Lys Gln Val Phe Leu Tyr
130 135 140

Pro Glu Lys Asp Glu Pro Thr Tyr Ile Leu Asn Ile Lys Arg Gly Ile
145 150 155 160

Ile Ser Ala Leu Leu Val Pro Pro Glu Thr Glu Glu Ala Lys Gln Val
165 170 175

Leu Phe Leu Asp Thr Val Tyr Gly Asn Cys Ser Thr His Phe Thr Val
180 185 190

Lys Thr Arg Lys Gly Asn Val Ala Thr Glu Ile Ser Thr Glu Arg Asp

195 200 205

Leu Gly Gln Cys Asp Arg Phe Lys Pro Ile Arg Thr Gly Ile Ser Pro
210 215 220

Leu Ala Leu Ile Lys Gly Met Thr Arg Pro Leu Ser Thr Leu Ile Ser
225 230 235 240

Ser Ser Gln Ser Cys Gln Tyr Thr Leu Asp Ala Lys Arg Lys His Val
245 250 255

Ala Glu Ala Ile Cys Lys Glu Gln His Leu Phe Leu Pro Phe Ser Tyr
260 265 270

Asn Asn Lys Tyr Gly Met Val Ala Gln Val Thr Gln Thr Leu Lys Leu
275 280 285

Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe Phe Gly Glu Gly Thr Lys
290 295 300

Lys Met Gly Leu Ala Phe Glu Ser Thr Lys Ser Thr Ser Pro Pro Lys
305 310 315 320

Gln Ala Glu Ala Val Leu Lys Thr Leu Gln Glu Leu Lys Lys Leu Thr
325 330 335

Ile Ser Glu Gln Asn Ile Gln Arg Ala Asn Leu Phe Asn Lys Leu Val
340 345 350

Thr Glu Leu Arg Gly Leu Ser Asp Glu Ala Val Thr Ser Leu Leu Pro
355 360 365

Gln Leu Ile Glu Val Ser Ser Pro Ile Thr Leu Gln Ala Leu Val Gln
370 375 380

Cys Gly Gln Pro Gln Cys Ser Thr His Ile Leu Gln Trp Leu Lys Arg
385 390 395 400

Val His Ala Asn Pro Leu Leu Ile Asp Val Val Thr Tyr Leu Val Ala
405 410 415

Leu Ile Pro Glu Pro Ser Ala Gln Gln Leu Arg Glu Ile Phe Asn Met
420 425 430

Ala Arg Asp Gln Arg Ser Arg Ala Thr Leu Tyr Ala Leu Ser His Ala
435 440 445

Val Asn Asn Tyr His Lys Thr Asn Pro Thr Gly Thr Gln Glu Leu Leu
450 455 460

Asp Ile Ala Asn Tyr Leu Met Glu Gln Ile Gln Asp Asp Cys Thr Gly
465 470 475 480

Asp Glu Asp Tyr Thr Tyr Leu Ile Leu Arg Val Ile Gly Asn Met Gly
485 490 495

Gln Thr Met Glu Gln Leu Thr Pro Glu Leu Lys Ser Ser Ile Leu Lys
500 505 510

Cys Val Gln Ser Thr Lys Pro Ser Leu Met Ile Gln Lys Ala Ala Ile
515 520 525

Gln Ala Leu Arg Lys Met Glu Pro Lys Asp Lys Asp Gln Glu Val Leu
530 535 540

Leu Gln Thr Phe Leu Asp Asp Ala Ser Pro Gly Asp Lys Arg Leu Ala
545 550 555 560

Ala Tyr Leu Met Leu Met Arg Ser Pro Ser Gln Ala Asp Ile Asn Lys
565 570 575

Ile Val Gln Ile Leu Pro Trp Glu Gln Asn Glu Gln Val Lys Asn Phe
580 585 590

Val Ala Ser His Ile Ala Asn Ile Leu Asn Ser Glu Glu Leu Asp Ile
595 600 605

Gln Asp Leu Lys Lys Leu Val Lys Glu Ala Leu Lys Glu Ser Gln Leu
610 615 620

Pro Thr Val Met Asp Phe Arg Lys Phe Ser Arg Asn Tyr Gln Leu Tyr
625 630 635 640

Lys Ser Val Ser Leu Pro Ser Leu Asp Pro Ala Ser Ala Lys Ile Glu
645 650 655

Gly Asn Leu Ile Phe Asp Pro Asn Asn Tyr Leu Pro Lys Glu Ser Met
660 665 670

Leu Lys Thr Thr Leu Thr Ala Phe Gly Phe Ala Ser Ala Asp Leu Ile
675 680 685

Glu Ile Gly Leu Glu Gly Lys Gly Phe Glu Pro Thr Leu Glu Ala Leu
690 695 700

Phe Gly Lys Gln Gly Phe Phe Pro Asp Ser Val Asn Lys Ala Leu Tyr
705 710 715 720

Trp Val Asn Gly Gln Val Pro Asp Gly Val Ser Lys Val Leu Val Asp
725 730 735

His Phe Gly Tyr Thr Lys Asp Asp Lys His Glu Gln Asp Met Val Asn
740 745 750

Gly Ile Met Leu Ser Val Glu Lys Leu Ile Lys Asp Leu Lys Ser Lys

755 760 765

Glu Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile Leu Gly Glu Glu Leu
770 775 780

Gly Phe Ala Ser Leu His Asp Leu Gln Leu Leu Gly Lys Leu Leu Leu
785 790 795 800

Met Gly Ala Arg Thr Leu Gln Gly Ile Pro Gln Met Ile Gly Glu Val
805 810 815

Ile Arg Lys Gly Ser Lys Asn Asp Phe Phe Leu His Tyr Ile Phe Met
820 825 830

Glu Asn Ala Phe Glu Leu Pro Thr Gly Ala Gly Leu Gln Leu Gln Ile
835 840 845

Ser Ser Ser Gly Val Ile Ala Pro Gly Ala Lys Ala Gly Val Lys Leu
850 855 860

Glu Val Ala Asn Met Gln Ala Glu Leu Val Ala Lys Pro Ser Val Ser
865 870 875 880

Val Glu Phe Val Thr Asn Met Gly Ile Ile Ile Pro Asp Phe Ala Arg
885 890 895

Ser Gly Val Gln Met Asn Thr Asn Phe Phe His Glu Ser Gly Leu Glu
900 905 910

Ala His Val Ala Leu Lys Ala Gly Lys Leu Lys Phe Ile Ile Pro Ser
915 920 925

Pro Lys Arg Pro Val Lys Leu Leu Ser Gly Gly Asn Thr Leu His Leu
930 935 940

Val Ser Thr Thr Lys Thr Glu Val Ile Pro Pro Leu Ile Glu Asn Arg
945 950 955 960

Gln Ser Trp Ser Val Cys Lys Gln Val Phe Pro Gly Leu Asn Tyr Cys
965 970 975

Thr Ser Gly Ala Tyr Ser Asn Ala Ser Ser Thr Asp Ser Ala Ser Tyr
980 985 990

Tyr Pro Leu Thr Gly Asp Thr Arg Leu Glu Leu Glu Leu Arg Pro Thr
995 1000 1005

Gly Glu Ile Glu Gln Tyr Ser Val Ser Ala Thr Tyr Glu Leu Gln
1010 1015 1020

Arg Glu Asp Arg Ala Leu Val Asp Thr Leu Lys Phe Val Thr Gln
1025 1030 1035

Ala Glu Gly Ala Lys Gln Thr Glu Ala Thr Met Thr Phe Lys Tyr
1040 1045 1050

Asn Arg Gln Ser Met Thr Leu Ser Ser Glu Val Gln Ile Pro Asp
1055 1060 1065

Phe Asp Val Asp Leu Gly Thr Ile Leu Arg Val Asn Asp Glu Ser
1070 1075 1080

Thr Glu Gly Lys Thr Ser Tyr Arg Leu Thr Leu Asp Ile Gln Asn
1085 1090 1095

Lys Lys Ile Thr Glu Val Ala Leu Met Gly His Leu Ser Cys Asp
1100 1105 1110

Thr Lys Glu Glu Arg Lys Ile Lys Gly Val Ile Ser Ile Pro Arg
1115 1120 1125

Leu Gln Ala Glu Ala Arg Ser Glu Ile Leu Ala His Trp Ser Pro
1130 1135 1140

Ala Lys Leu Leu Leu Gln Met Asp Ser Ser Ala Thr Ala Tyr Gly
1145 1150 1155

Ser Thr Val Ser Lys Arg Val Ala Trp His Tyr Asp Glu Glu Lys
1160 1165 1170

Ile Glu Phe Glu Trp Asn Thr Gly Thr Asn Val Asp Thr Lys Lys
1175 1180 1185

Met Thr Ser Asn Phe Pro Val Asp Leu Ser Asp Tyr Pro Lys Ser
1190 1195 1200

Leu His Met Tyr Ala Asn Arg Leu Leu Asp His Arg Val Pro Glu
1205 1210 1215

Thr Asp Met Thr Phe Arg His Val Gly Ser Lys Leu Ile Val Ala
1220 1225 1230

Met Ser Ser Trp Leu Gln Lys Ala Ser Gly Ser Leu Pro Tyr Thr
1235 1240 1245

Gln Thr Leu Gln Asp His Leu Asn Ser Leu Lys Glu Phe Asn Leu
1250 1255 1260

Gln Asn Met Gly Leu Pro Asp Phe His Ile Pro Glu Asn Leu Phe
1265 1270 1275

Leu Lys Ser Asp Gly Arg Val Lys Tyr Thr Leu Asn Lys Asn Ser
1280 1285 1290

Leu Lys Ile Glu Ile Pro Leu Pro Phe Gly Gly Lys Ser Ser Arg

1295 1300 1305

Asp Leu Lys Met Leu Glu Thr Val Arg Thr Pro Ala Leu His Phe
1310 1315 1320

Lys Ser Val Gly Phe His Leu Pro Ser Arg Glu Phe Gln Val Pro
1325 1330 1335

Thr Phe Thr Ile Pro Lys Leu Tyr Gln Leu Gln Val Pro Leu Leu
1340 1345 1350

Gly Val Leu Asp Leu Ser Thr Asn Val Tyr Ser Asn Leu Tyr Asn
1355 1360 1365

Trp Ser Ala Ser Tyr Ser Gly Gly Asn Thr Ser Thr Asp His Phe
1370 1375 1380

Ser Leu Arg Ala Arg Tyr His Met Lys Ala Asp Ser Val Val Asp
1385 1390 1395

Leu Leu Ser Tyr Asn Val Gln Gly Ser Gly Glu Thr Thr Tyr Asp
1400 1405 1410

His Lys Asn Thr Phe Thr Leu Ser Cys Asp Gly Ser Leu Arg His
1415 1420 1425

Lys Phe Leu Asp Ser Asn Ile Lys Phe Ser His Val Glu Lys Leu
1430 1435 1440

Gly Asn Asn Pro Val Ser Lys Gly Leu Leu Ile Phe Asp Ala Ser
1445 1450 1455

Ser Ser Trp Gly Pro Gln Met Ser Ala Ser Val His Leu Asp Ser
1460 1465 1470

Lys Lys Lys Gln His Leu Phe Val Lys Glu Val Lys Ile Asp Gly
1475 1480 1485

Gln Phe Arg Val Ser Ser Phe Tyr Ala Lys Gly Thr Tyr Gly Leu
1490 1495 1500

Ser Cys Gln Arg Asp Pro Asn Thr Gly Arg Leu Asn Gly Glu Ser
1505 1510 1515

Asn Leu Arg Phe Asn Ser Ser Tyr Leu Gln Gly Thr Asn Gln Ile
1520 1525 1530

Thr Gly Arg Tyr Glu Asp Gly Thr Leu Ser Leu Thr Ser Thr Ser
1535 1540 1545

Asp Leu Gln Ser Gly Ile Ile Lys Asn Thr Ala Ser Leu Lys Tyr
1550 1555 1560

Glu Asn Tyr Glu Leu Thr Leu Lys Ser Asp Thr Asn Gly Lys Tyr
1565 1570 1575

Lys Asn Phe Ala Thr Ser Asn Lys Met Asp Met Thr Phe Ser Lys
1580 1585 1590

Gln Asn Ala Leu Leu Arg Ser Glu Tyr Gln Ala Asp Tyr Glu Ser
1595 1600 1605

Leu Arg Phe Phe Ser Leu Leu Ser Gly Ser Leu Asn Ser His Gly
1610 1615 1620

Leu Glu Leu Asn Ala Asp Ile Leu Gly Thr Asp Lys Ile Asn Ser
1625 1630 1635

Gly Ala His Lys Ala Thr Leu Arg Ile Gly Gln Asp Gly Ile Ser
1640 1645 1650

Thr Ser Ala Thr Thr Asn Leu Lys Cys Ser Leu Leu Val Leu Glu
1655 1660 1665

Asn Glu Leu Asn Ala Glu Leu Gly Leu Ser Gly Ala Ser Met Lys
1670 1675 1680

Leu Thr Thr Asn Gly Arg Phe Arg Glu His Asn Ala Lys Phe Ser
1685 1690 1695

Leu Asp Gly Lys Ala Ala Leu Thr Glu Leu Ser Leu Gly Ser Ala
1700 1705 1710

Tyr Gln Ala Met Ile Leu Gly Val Asp Ser Lys Asn Ile Phe Asn
1715 1720 1725

Phe Lys Val Ser Gln Glu Gly Leu Lys Leu Ser Asn Asp Met Met
1730 1735 1740

Gly Ser Tyr Ala Glu Met Lys Phe Asp His Thr Asn Ser Leu Asn
1745 1750 1755

Ile Ala Gly Leu Ser Leu Asp Phe Ser Ser Lys Leu Asp Asn Ile
1760 1765 1770

Tyr Ser Ser Asp Lys Phe Tyr Lys Gln Thr Val Asn Leu Gln Leu
1775 1780 1785

Gln Pro Tyr Ser Leu Val Thr Thr Leu Asn Ser Asp Leu Lys Tyr
1790 1795 1800

Asn Ala Leu Asp Leu Thr Asn Asn Gly Lys Leu Arg Leu Glu Pro
1805 1810 1815

Leu Lys Leu His Val Ala Gly Asn Leu Lys Gly Ala Tyr Gln Asn

1820 1825 1830

Asn Glu Ile Lys His Ile Tyr Ala Ile Ser Ser Ala Ala Leu Ser
1835 1840 1845

Ala Ser Tyr Lys Ala Asp Thr Val Ala Lys Val Gln Gly Val Glu
1850 1855 1860

Phe Ser His Arg Leu Asn Thr Asp Ile Ala Gly Leu Ala Ser Ala
1865 1870 1875

Ile Asp Met Ser Thr Asn Tyr Asn Ser Asp Ser Leu His Phe Ser
1880 1885 1890

Asn Val Phe Arg Ser Val Met Ala Pro Phe Thr Met Thr Ile Asp
1895 1900 1905

Ala His Thr Asn Gly Asn Gly Lys Leu Ala Leu Trp Gly Glu His
1910 1915 1920

Thr Gly Gln Leu Tyr Ser Lys Phe Leu Leu Lys Ala Glu Pro Leu
1925 1930 1935

Ala Phe Thr Phe Ser His Asp Tyr Lys Gly Ser Thr Ser His His
1940 1945 1950

Leu Val Ser Arg Lys Ser Ile Ser Ala Ala Leu Glu His Lys Val
1955 1960 1965

Ser Ala Leu Leu Thr Pro Ala Glu Gln Thr Gly Thr Trp Lys Leu
1970 1975 1980

Lys Thr Gln Phe Asn Asn Asn Glu Tyr Ser Gln Asp Leu Asp Ala
1985 1990 1995

Tyr Asn Thr Lys Asp Lys Ile Gly Val Glu Leu Thr Gly Arg Thr
2000 2005 2010

Leu Ala Asp Leu Thr Leu Leu Asp Ser Pro Ile Lys Val Pro Leu
2015 2020 2025

Leu Leu Ser Glu Pro Ile Asn Ile Ile Asp Ala Leu Glu Met Arg
2030 2035 2040

Asp Ala Val Glu Lys Pro Gln Glu Phe Thr Ile Val Ala Phe Val
2045 2050 2055

Lys Tyr Asp Lys Asn Gln Asp Val His Ser Ile Asn Leu Pro Phe
2060 2065 2070

Phe Glu Thr Leu Gln Glu Tyr Phe Glu Arg Asn Arg Gln Thr Ile
2075 2080 2085

Ile Val Val Val Glu Asn Val Gln Arg Asn Leu Lys His Ile Asn
2090 2095 2100

Ile Asp Gln Phe Val Arg Lys Tyr Arg Ala Ala Leu Gly Lys Leu
2105 2110 2115

Pro Gln Gln Ala Asn Asp Tyr Leu Asn Ser Phe Asn Trp Glu Arg
2120 2125 2130

Gln Val Ser His Ala Lys Glu Lys Leu Thr Ala Leu Thr Lys Lys
2135 2140 2145

Tyr Arg Ile Thr Glu Asn Asp Ile Gln Ile Ala Leu Asp Asp Ala
2150 2155 2160

Lys Ile Asn Phe Asn Glu Lys Leu Ser Gln Leu Gln Thr Tyr Met
2165 2170 2175

Ile Gln Phe Asp Gln Tyr Ile Lys Asp Ser Tyr Asp Leu His Asp
2180 2185 2190

Leu Lys Ile Ala Ile Ala Asn Ile Ile Asp Glu Ile Ile Glu Lys
2195 2200 2205

Leu Lys Ser Leu Asp Glu His Tyr His Ile Arg Val Asn Leu Val
2210 2215 2220

Lys Thr Ile His Asp Leu His Leu Phe Ile Glu Asn Ile Asp Phe
2225 2230 2235

Asn Lys Ser Gly Ser Ser Thr Ala Ser Trp Ile Gln Asn Val Asp
2240 2245 2250

Thr Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln
2255 2260 2265

Leu Lys Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly
2270 2275 2280

Lys Leu Lys Gln His Ile Glu Ala Ile Asp Val Arg Val Leu Leu
2285 2290 2295

Asp Gln Leu Gly Thr Thr Ile Ser Phe Glu Arg Ile Asn Asp Val
2300 2305 2310

Leu Glu His Val Lys His Phe Val Ile Asn Leu Ile Gly Asp Phe
2315 2320 2325

Glu Val Ala Glu Lys Ile Asn Ala Phe Arg Ala Lys Val His Glu
2330 2335 2340

Leu Ile Glu Arg Tyr Glu Val Asp Gln Gln Ile Gln Val Leu Met

2345 2350 2355

Asp Lys Leu Val Glu Leu Thr His Gln Tyr Lys Leu Lys Glu Thr
2360 2365 2370

Ile Gln Lys Leu Ser Asn Val Leu Gln Gln Val Lys Ile Lys Asp
2375 2380 2385

Tyr Phe Glu Lys Leu Val Gly Phe Ile Asp Asp Ala Val Lys Lys
2390 2395 2400

Leu Asn Glu Leu Ser Phe Lys Thr Phe Ile Glu Asp Val Asn Lys
2405 2410 2415

Phe Leu Asp Met Leu Ile Lys Lys Leu Lys Ser Phe Asp Tyr His
2420 2425 2430

Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu Val Thr Gln
2435 2440 2445

Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro Gln Lys Ala
2450 2455 2460

Glu Ala Leu Lys Leu Phe Leu Glu Glu Thr Lys Ala Thr Val Ala
2465 2470 2475

Val Tyr Leu Glu Ser Leu Gln Asp Thr Lys Ile Thr Leu Ile Ile
2480 2485 2490

Asn Trp Leu Gln Glu Ala Leu Ser Ser Ala Ser Leu Ala His Met
2495 2500 2505

Lys Ala Lys Phe Arg Glu Thr Leu Glu Asp Thr Arg Asp Arg Met
2510 2515 2520

Tyr Gln Met Asp Ile Gln Gln Glu Leu Gln Arg Tyr Leu Ser Leu
2525 2530 2535

Val Gly Gln Val Tyr Ser Thr Leu Val Thr Tyr Ile Ser Asp Trp
2540 2545 2550

Trp Thr Leu Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr
2555 2560 2565

Ser Ile Gln Asp Trp Ala Lys Arg Met Lys Ala Leu Val Glu Gln
2570 2575 2580

Gly Phe Thr Val Pro Glu Ile Lys Thr Ile Leu Gly Thr Met Pro
2585 2590 2595

Ala Phe Glu Val Ser Leu Gln Ala Leu Gln Lys Ala Thr Phe Gln
2600 2605 2610

Thr Pro Asp Phe Ile Val Pro Leu Thr Asp Leu Arg Ile Pro Ser
2615 2620 2625

Val Gln Ile Asn Phe Lys Asp Leu Lys Asn Ile Lys Ile Pro Ser
2630 2635 2640

Arg Phe Ser Thr Pro Glu Phe Thr Ile Leu Asn Thr Phe His Ile
2645 2650 2655

Pro Ser Phe Thr Ile Asp Phe Val Glu Met Lys Val Lys Ile Ile
2660 2665 2670

Arg Thr Ile Asp Gln Met Gln Asn Ser Glu Leu Gln Trp Pro Val
2675 2680 2685

Pro Asp Ile Tyr Leu Arg Asp Leu Lys Val Glu Asp Ile Pro Leu
2690 2695 2700

Ala Arg Ile Thr Leu Pro Asp Phe Arg Leu Pro Glu Ile Ala Ile
2705 2710 2715

Pro Glu Phe Ile Ile Pro Thr Leu Asn Leu Asn Asp Phe Gln Val
2720 2725 2730

Pro Asp Leu His Ile Pro Glu Phe Gln Leu Pro His Ile Ser His
2735 2740 2745

Thr Ile Glu Val Pro Thr Phe Gly Lys Leu Tyr Ser Ile Leu Lys
2750 2755 2760

Ile Gln Ser Pro Leu Phe Thr Leu Asp Ala Asn Ala Asp Ile Gly
2765 2770 2775

Asn Gly Thr Thr Ser Ala Asn Glu Ala Gly Ile Ala Ala Ser Ile
2780 2785 2790

Thr Ala Lys Gly Glu Ser Lys Leu Glu Val Leu Asn Phe Asp Phe
2795 2800 2805

Gln Ala Asn Ala Gln Leu Ser Asn Pro Lys Ile Asn Pro Leu Ala
2810 2815 2820

Leu Lys Glu Ser Val Lys Phe Ser Ser Lys Tyr Leu Arg Thr Glu
2825 2830 2835

His Gly Ser Glu Met Leu Phe Phe Gly Asn Ala Ile Glu Gly Lys
2840 2845 2850

Ser Asn Thr Val Ala Ser Leu His Thr Glu Lys Asn Thr Leu Glu
2855 2860 2865

Leu Ser Asn Gly Val Ile Val Lys Ile Asn Asn Gln Leu Thr Leu

2870 2875 2880

Asp Ser Asn Thr Lys Tyr Phe His Lys Leu Asn Ile Pro Lys Leu
2885 2890 2895

Asp Phe Ser Ser Gln Ala Asp Leu Arg Asn Glu Ile Lys Thr Leu
2900 2905 2910

Leu Lys Ala Gly His Ile Ala Trp Thr Ser Ser Gly Lys Gly Ser
2915 2920 2925

Trp Lys Trp Ala Cys Pro Arg Phe Ser Asp Glu Gly Thr His Glu
2930 2935 2940

Ser Gln Ile Ser Phe Thr Ile Glu Gly Pro Leu Thr Ser Phe Gly
2945 2950 2955

Leu Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn Gln Asn
2960 2965 2970

Leu Val Tyr Glu Ser Gly Ser Leu Asn Phe Ser Lys Leu Glu Ile
2975 2980 2985

Gln Ser Gln Val Asp Ser Gln His Val Gly His Ser Val Leu Thr
2990 2995 3000

Ala Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr
3005 3010 3015

Gly Arg His Asp Ala His Leu Asn Gly Lys Val Ile Gly Thr Leu
3020 3025 3030

Lys Asn Ser Leu Phe Phe Ser Ala Gln Pro Phe Glu Ile Thr Ala
3035 3040 3045

Ser Thr Asn Asn Glu Gly Asn Leu Lys Val Arg Phe Pro Leu Arg
3050 3055 3060

Leu Thr Gly Lys Ile Asp Phe Leu Asn Asn Tyr Ala Leu Phe Leu
3065 3070 3075

Ser Pro Ser Ala Gln Gln Ala Ser Trp Gln Val Ser Ala Arg Phe
3080 3085 3090

Asn Gln Tyr Lys Tyr Asn Gln Asn Phe Ser Ala Gly Asn Asn Glu
3095 3100 3105

Asn Ile Met Glu Ala His Val Gly Ile Asn Gly Glu Ala Asn Leu
3110 3115 3120

Asp Phe Leu Asn Ile Pro Leu Thr Ile Pro Glu Met Arg Leu Pro
3125 3130 3135

Tyr Thr Ile Ile Thr Thr Pro Pro Leu Lys Asp Phe Ser Leu Trp
3140 3145 3150

Glu Lys Thr Gly Leu Lys Glu Phe Leu Lys Thr Thr Lys Gln Ser
3155 3160 3165

Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys Asn Lys His Arg
3170 3175 3180

His Ser Ile Thr Asn Pro Leu Ala Val Leu Cys Glu Phe Ile Ser
3185 3190 3195

Gln Ser Ile Lys Ser Phe Asp Arg His Phe Glu Lys Asn Arg Asn
3200 3205 3210

Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu Thr Lys Ile
3215 3220 3225

Lys Phe Asp Lys Tyr Lys Ala Glu Lys Ser His Asp Glu Leu Pro
3230 3235 3240

Arg Thr Phe Gln Ile Pro Gly Tyr Thr Val Pro Val Val Asn Val
3245 3250 3255

Glu Val Ser Pro Phe Thr Ile Glu Met Ser Ala Phe Gly Tyr Val
3260 3265 3270

Phe Pro Lys Ala Val Ser Met Pro Ser Phe Ser Ile Leu Gly Ser
3275 3280 3285

Asp Val Arg Val Pro Ser Tyr Thr Leu Ile Leu Pro Ser Leu Glu
3290 3295 3300

Leu Pro Val Leu His Val Pro Arg Asn Leu Lys Leu Ser Leu Pro
3305 3310 3315

His Phe Lys Glu Leu Cys Thr Ile Ser His Ile Phe Ile Pro Ala
3320 3325 3330

Met Gly Asn Ile Thr Tyr Asp Phe Ser Phe Lys Ser Ser Val Ile
3335 3340 3345

Thr Leu Asn Thr Asn Ala Glu Leu Phe Asn Gln Ser Asp Ile Val
3350 3355 3360

Ala His Leu Leu Ser Ser Ser Ser Ser Val Ile Asp Ala Leu Gln
3365 3370 3375

Tyr Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg Gly Leu
3380 3385 3390

Lys Leu Ala Thr Ala Leu Ser Leu Ser Asn Lys Phe Val Glu Gly

3395 3400 3405

Ser His Asn Ser Thr Val Ser Leu Thr Thr Lys Asn Met Glu Val
3410 3415 3420

Ser Val Ala Lys Thr Thr Lys Ala Glu Ile Pro Ile Leu Arg Met
3425 3430 3435

Asn Phe Lys Gln Glu Leu Asn Gly Asn Thr Lys Ser Lys Pro Thr
3440 3445 3450

Val Ser Ser Ser Met Glu Phe Lys Tyr Asp Phe Asn Ser Ser Met
3455 3460 3465

Leu Tyr Ser Thr Ala Lys Gly Ala Val Asp His Lys Leu Ser Leu
3470 3475 3480

Glu Ser Leu Thr Ser Tyr Phe Ser Ile Glu Ser Ser Thr Lys Gly
3485 3490 3495

Asp Val Lys Gly Ser Val Leu Ser Arg Glu Tyr Ser Gly Thr Ile
3500 3505 3510

Ala Ser Glu Ala Asn Thr Tyr Leu Asn Ser Lys Ser Thr Arg Ser
3515 3520 3525

Ser Val Lys Leu Gln Gly Thr Ser Lys Ile Asp Asp Ile Trp Asn
3530 3535 3540

Leu Glu Val Lys Glu Asn Phe Ala Gly Glu Ala Thr Leu Gln Arg
3545 3550 3555

Ile Tyr Ser Leu Trp Glu His Ser Thr Lys Asn His Leu Gln Leu
3560 3565 3570

Glu Gly Leu Phe Phe Thr Asn Gly Glu His Thr Ser Lys Ala Thr
3575 3580 3585

Leu Glu Leu Ser Pro Trp Gln Met Ser Ala Leu Val Gln Val His
3590 3595 3600

Ala Ser Gln Pro Ser Ser Phe His Asp Phe Pro Asp Leu Gly Gln
3605 3610 3615

Glu Val Ala Leu Asn Ala Asn Thr Lys Asn Gln Lys Ile Arg Trp
3620 3625 3630

Lys Asn Glu Val Arg Ile His Ser Gly Ser Phe Gln Ser Gln Val
3635 3640 3645

Glu Leu Ser Asn Asp Gln Glu Lys Ala His Leu Asp Ile Ala Gly
3650 3655 3660

Ser Leu Glu Gly His Leu Arg Phe Leu Lys Asn Ile Ile Leu Pro
3665 3670 3675

Val Tyr Asp Lys Ser Leu Trp Asp Phe Leu Lys Leu Asp Val Thr
3680 3685 3690

Thr Ser Ile Gly Arg Arg Gln His Leu Arg Val Ser Thr Ala Phe
3695 3700 3705

Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser Phe Ser Ile Pro Val
3710 3715 3720

Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly Leu Lys Leu Asn
3725 3730 3735

Asp Leu Asn Ser Val Leu Val Met Pro Thr Phe His Val Pro Phe
3740 3745 3750

Thr Asp Leu Gln Val Pro Ser Cys Lys Leu Asp Phe Arg Glu Ile
3755 3760 3765

Gln Ile Tyr Lys Lys Leu Arg Thr Ser Ser Phe Ala Leu Asn Leu
3770 3775 3780

Pro Thr Leu Pro Glu Val Lys Phe Pro Glu Val Asp Val Leu Thr
3785 3790 3795

Lys Tyr Ser Gln Pro Glu Asp Ser Leu Ile Pro Phe Phe Glu Ile
3800 3805 3810

Thr Val Pro Glu Ser Gln Leu Thr Val Ser Gln Phe Thr Leu Pro
3815 3820 3825

Lys Ser Val Ser Asp Gly Ile Ala Ala Leu Asp Leu Asn Ala Val
3830 3835 3840

Ala Asn Lys Ile Ala Asp Phe Glu Leu Pro Thr Ile Ile Val Pro
3845 3850 3855

Glu Gln Thr Ile Glu Ile Pro Ser Ile Lys Phe Ser Val Pro Ala
3860 3865 3870

Gly Ile Val Ile Pro Ser Phe Gln Ala Leu Thr Ala Arg Phe Glu
3875 3880 3885

Val Asp Ser Pro Val Tyr Asn Ala Thr Trp Ser Ala Ser Leu Lys
3890 3895 3900

Asn Lys Ala Asp Tyr Val Glu Thr Val Leu Asp Ser Thr Cys Ser
3905 3910 3915

Ser Thr Val Gln Phe Leu Glu Tyr Glu Leu Asn Val Leu Gly Thr

3920 3925 3930

His Lys Ile Glu Asp Gly Thr Leu Ala Ser Lys Thr Lys Gly Thr
3935 3940 3945

Leu Ala His Arg Asp Phe Ser Ala Glu Tyr Glu Glu Asp Gly Lys
3950 3955 3960

Phe Glu Gly Leu Gln Glu Trp Glu Gly Lys Ala His Leu Asn Ile
3965 3970 3975

Lys Ser Pro Ala Phe Thr Asp Leu His Leu Arg Tyr Gln Lys Asp
3980 3985 3990

Lys Lys Gly Ile Ser Thr Ser Ala Ala Ser Pro Ala Val Gly Thr
3995 4000 4005

Val Gly Met Asp Met Asp Glu Asp Asp Asp Phe Ser Lys Trp Asn
4010 4015 4020

Phe Tyr Tyr Ser Pro Gln Ser Ser Pro Asp Lys Lys Leu Thr Ile
4025 4030 4035

Phe Lys Thr Glu Leu Arg Val Arg Glu Ser Asp Glu Glu Thr Gln
4040 4045 4050

Ile Lys Val Asn Trp Glu Glu Glu Ala Ala Ser Gly Leu Leu Thr
4055 4060 4065

Ser Leu Lys Asp Asn Val Pro Lys Ala Thr Gly Val Leu Tyr Asp
4070 4075 4080

Tyr Val Asn Lys Tyr His Trp Glu His Thr Gly Leu Thr Leu Arg
4085 4090 4095

Glu Val Ser Ser Lys Leu Arg Arg Asn Leu Gln Asn Asn Ala Glu
4100 4105 4110

Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile Asp Asp Ile Asp Val
4115 4120 4125

Arg Phe Gln Lys Ala Ala Ser Gly Thr Thr Gly Thr Tyr Gln Glu
4130 4135 4140

Trp Lys Asp Lys Ala Gln Asn Leu Tyr Gln Glu Leu Leu Thr Gln
4145 4150 4155

Glu Gly Gln Ala Ser Phe Gln Gly Leu Lys Asp Asn Val Phe Asp
4160 4165 4170

Gly Leu Val Arg Val Thr Gln Lys Phe His Met Lys Val Lys His
4175 4180 4185

Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe Pro Arg Phe Gln
4190 4195 4200

Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr
4205 4210 4215

Met Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser
4220 4225 4230

Lys Val His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp
4235 4240 4245

Leu Val Ile Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile
4250 4255 4260

Asp Val Ile Ser Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys
4265 4270 4275

Glu Ala Gln Glu Val Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr
4280 4285 4290

Glu Val Leu Arg Asn Leu Gln Asp Leu Leu Gln Phe Ile Phe Gln
4295 4300 4305

Leu Ile Glu Asp Asn Ile Lys Gln Leu Lys Glu Met Lys Phe Thr
4310 4315 4320

Tyr Leu Ile Asn Tyr Ile Gln Asp Glu Ile Asn Thr Ile Phe Asn
4325 4330 4335

Asp Tyr Ile Pro Tyr Val Phe Lys Leu Leu Lys Glu Asn Leu Cys
4340 4345 4350

Leu Asn Leu His Lys Phe Asn Glu Phe Ile Gln Asn Glu Leu Gln
4355 4360 4365

Glu Ala Ser Gln Glu Leu Gln Gln Ile His Gln Tyr Ile Met Ala
4370 4375 4380

Leu Arg Glu Glu Tyr Phe Asp Pro Ser Ile Val Gly Trp Thr Val
4385 4390 4395

Lys Tyr Tyr Glu Leu Glu Glu Lys Ile Val Ser Leu Ile Lys Asn
4400 4405 4410

Leu Leu Val Ala Leu Lys Asp Phe His Ser Glu Tyr Ile Val Ser
4415 4420 4425

Ala Ser Asn Phe Thr Ser Gln Leu Ser Ser Gln Val Glu Gln Phe
4430 4435 4440

Leu His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro

4445 4450 4455

Asp Gly Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala Thr Ala
4460 4465 4470

Gln Glu Ile Ile Lys Ser Gln Ala Ile Ala Thr Lys Lys Ile Ile
4475 4480 4485

Ser Asp Tyr His Gln Gln Phe Arg Tyr Lys Leu Gln Asp Phe Ser
4490 4495 4500

Asp Gln Leu Ser Asp Tyr Tyr Glu Lys Phe Ile Ala Glu Ser Lys
4505 4510 4515

Arg Leu Ile Asp Leu Ser Ile Gln Asn Tyr His Thr Phe Leu Ile
4520 4525 4530

Tyr Ile Thr Glu Leu Leu Lys Lys Leu Gln Ser Thr Thr Val Met
4535 4540 4545

Asn Pro Tyr Met Lys Leu Ala Pro Gly Glu Leu Thr Ile Ile Leu
4550 4555 4560

<210> 42
<211> 930
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/Q14624
<309> 1998-07-15
<313> (1)..(930)

<400> 42

Met Lys Pro Pro Arg Pro Val Arg Thr Cys Ser Lys Val Leu Val Leu
1 5 10 15

Leu Ser Leu Leu Ala Ile His Gln Thr Thr Thr Ala Glu Lys Asn Gly
20 25 30

Ile Asp Ile Tyr Ser Leu Thr Val Asp Ser Arg Val Ser Ser Arg Phe
35 40 45

Ala His Thr Val Val Thr Ser Arg Val Val Asn Arg Ala Asn Thr Val
50 55 60

Gln Glu Ala Thr Phe Gln Met Glu Leu Pro Lys Lys Ala Phe Ile Thr
65 70 75 80

Asn Phe Ser Met Asn Ile Asp Gly Met Thr Tyr Pro Gly Ile Ile Lys
85 90 95

Glu Lys Ala Glu Ala Gln Ala Gln Tyr Ser Ala Ala Val Ala Lys Gly
100 105 110

Lys Ser Ala Gly Leu Val Lys Ala Thr Gly Arg Asn Met Glu Gln Phe
115 120 125

Gln Val Ser Val Ser Val Ala Pro Asn Ala Lys Ile Thr Phe Glu Leu
130 135 140

Val Tyr Glu Glu Leu Leu Lys Arg Arg Leu Gly Val Tyr Glu Leu Leu
145 150 155 160

Leu Lys Val Arg Pro Gln Gln Leu Val Lys His Leu Gln Met Asp Ile
165 170 175

His Ile Phe Glu Pro Gln Gly Ile Ser Phe Leu Glu Thr Glu Ser Thr
180 185 190

Phe Met Thr Asn Gln Leu Val Asp Ala Leu Thr Thr Trp Gln Asn Lys
195 200 205

Thr Lys Ala His Ile Arg Phe Lys Pro Thr Leu Ser Gln Gln Gln Lys
210 215 220

Ser Pro Glu Gln Gln Glu Thr Val Leu Asp Gly Asn Leu Ile Ile Arg
225 230 235 240

Tyr Asp Val Asp Arg Ala Ile Ser Gly Gly Ser Ile Gln Ile Glu Asn
245 250 255

Gly Tyr Phe Val His Tyr Phe Ala Pro Glu Gly Leu Thr Thr Met Pro
260 265 270

Lys Asn Val Val Phe Val Ile Asp Lys Ser Gly Ser Met Ser Gly Arg
275 280 285

Lys Ile Gln Gln Thr Arg Glu Ala Leu Ile Lys Ile Leu Asp Asp Leu
290 295 300

Ser Pro Arg Asp Gln Phe Asn Leu Ile Val Phe Ser Thr Glu Ala Thr
305 310 315 320

Gln Trp Arg Pro Ser Leu Val Pro Ala Ser Ala Glu Asn Val Asn Lys
325 330 335

Ala Arg Ser Phe Ala Ala Gly Ile Gln Ala Leu Gly Gly Thr Asn Ile
340 345 350

Asn Asp Ala Met Leu Met Ala Val Gln Leu Leu Asp Ser Ser Asn Gln
355 360 365

Glu Glu Arg Leu Pro Glu Gly Ser Val Ser Leu Ile Ile Leu Leu Thr
370 375 380

Asp Gly Asp Pro Thr Val Gly Glu Thr Asn Pro Arg Ser Ile Gln Asn

385 390 395 400

Asn Val Arg Glu Ala Val Ser Gly Arg Tyr Ser Leu Phe Cys Leu Gly
405 410 415

Phe Gly Phe Asp Val Ser Tyr Ala Phe Leu Glu Lys Leu Ala Leu Asp
420 425 430

Asn Gly Gly Leu Ala Arg Arg Ile His Glu Asp Ser Asp Ser Ala Leu
435 440 445

Gln Leu Gln Asp Phe Tyr Gln Glu Val Ala Asn Pro Leu Leu Thr Ala
450 455 460

Val Thr Phe Glu Tyr Pro Ser Asn Ala Val Glu Glu Val Thr Gln Asn
465 470 475 480

Asn Phe Arg Leu Leu Phe Lys Gly Ser Glu Met Val Val Ala Gly Lys
485 490 495

Leu Gln Asp Arg Gly Pro Asp Val Leu Thr Ala Thr Val Ser Gly Lys
500 505 510

Leu Pro Thr Gln Asn Ile Thr Phe Gln Thr Glu Ser Ser Val Ala Glu
515 520 525

Gln Glu Ala Glu Phe Gln Ser Pro Lys Tyr Ile Phe His Asn Phe Met
530 535 540

Glu Arg Leu Trp Ala Tyr Leu Thr Ile Gln Gln Leu Leu Glu Gln Thr
545 550 555 560

Val Ser Ala Ser Asp Ala Asp Gln Gln Ala Leu Arg Asn Gln Ala Leu
565 570 575

Asn Leu Ser Leu Ala Tyr Ser Phe Val Thr Pro Leu Thr Ser Met Val
580 585 590

Val Thr Lys Pro Asp Asp Gln Glu Gln Ser Gln Val Ala Glu Lys Pro
595 600 605

Met Glu Gly Glu Ser Arg Asn Arg Asn Val His Ser Gly Ser Thr Phe
610 615 620

Phe Lys Tyr Tyr Leu Gln Gly Ala Lys Ile Pro Lys Pro Glu Ala Ser
625 630 635 640

Phe Ser Pro Arg Arg Gly Trp Asn Arg Gln Ala Gly Ala Ala Gly Ser
645 650 655

Arg Met Asn Phe Arg Pro Gly Val Leu Ser Ser Arg Gln Leu Gly Leu
660 665 670

Pro Gly Pro Pro Asp Val Pro Asp His Ala Ala Tyr His Pro Phe Arg
675 680 685

Arg Leu Ala Ile Leu Pro Ala Ser Ala Pro Pro Ala Thr Ser Asn Pro
690 695 700

Asp Pro Ala Val Ser Arg Val Met Asn Met Lys Ile Glu Glu Thr Thr
705 710 715 720

Met Thr Thr Gln Thr Pro Ala Pro Ile Gln Ala Pro Ser Ala Ile Leu
725 730 735

Pro Leu Pro Gly Gln Ser Val Glu Arg Leu Cys Val Asp Pro Arg His
740 745 750

Arg Gln Gly Pro Val Asn Leu Leu Ser Asp Pro Glu Gln Gly Val Glu
755 760 765

Val Thr Gly Gln Tyr Glu Arg Glu Lys Ala Gly Phe Ser Trp Ile Glu
770 775 780

Val Thr Phe Lys Asn Pro Leu Val Trp Val His Ala Ser Pro Glu His
785 790 795 800

Val Val Val Thr Arg Asn Arg Arg Ser Ser Ala Tyr Lys Trp Lys Glu
805 810 815

Thr Leu Phe Ser Val Met Pro Gly Leu Lys Met Thr Met Asp Lys Thr
820 825 830

Gly Leu Leu Leu Leu Ser Asp Pro Asp Lys Val Thr Ile Gly Leu Leu
835 840 845

Phe Trp Asp Gly Arg Gly Glu Gly Leu Arg Leu Leu Leu Arg Asp Thr
850 855 860

Asp Arg Phe Ser Ser His Val Gly Gly Thr Leu Gly Gln Phe Tyr Gln
865 870 875 880

Glu Val Leu Trp Gly Ser Pro Ala Ala Ser Asp Asp Gly Arg Arg Thr
885 890 895

Leu Arg Val Gln Gly Asn Asp His Ser Ala Thr Arg Glu Arg Arg Leu
900 905 910

Asp Tyr Gln Glu Gly Pro Pro Gly Val Glu Ile Ser Cys Trp Ser Val
915 920 925

Glu Leu
930

<210> 43

<211> 1744
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P01028
<309> 1986-07-21
<313> (1)..(1744)

<400> 43

Met Arg Leu Leu Trp Gly Leu Ile Trp Ala Ser Ser Phe Phe Thr Leu
1 5 10 15

Ser Leu Gln Lys Pro Arg Leu Leu Leu Phe Ser Pro Ser Val Val His
20 25 30

Leu Gly Val Pro Leu Ser Val Gly Val Gln Leu Gln Asp Val Pro Arg
35 40 45

Gly Gln Val Val Lys Gly Ser Val Phe Leu Arg Asn Pro Ser Arg Asn
50 55 60

Asn Val Pro Cys Ser Pro Lys Val Asp Phe Thr Leu Ser Ser Glu Arg
65 70 75 80

Asp Phe Ala Leu Leu Ser Leu Gln Val Pro Leu Lys Asp Ala Lys Ser
85 90 95

Cys Gly Leu His Gln Leu Leu Arg Gly Pro Glu Val Gln Leu Val Ala
100 105 110

His Ser Pro Trp Leu Lys Asp Ser Leu Ser Arg Thr Thr Asn Ile Gln
115 120 125

Gly Ile Asn Leu Leu Phe Ser Ser Arg Arg Gly His Leu Phe Leu Gln
130 135 140

Thr Asp Gln Pro Ile Tyr Asn Pro Gly Gln Arg Val Arg Tyr Arg Val
145 150 155 160

Phe Ala Leu Asp Gln Lys Met Arg Pro Ser Thr Asp Thr Ile Thr Val
165 170 175

Met Val Glu Asn Ser His Gly Leu Arg Val Arg Lys Lys Glu Val Tyr
180 185 190

Met Pro Ser Ser Ile Phe Gln Asp Asp Phe Val Ile Pro Asp Ile Ser
195 200 205

Glu Pro Gly Thr Trp Lys Ile Ser Ala Arg Phe Ser Asp Gly Leu Glu
210 215 220

Ser Asn Ser Ser Thr Gln Phe Glu Val Lys Lys Tyr Val Leu Pro Asn
225 230 235 240

Phe Glu Val Lys Ile Thr Pro Gly Lys Pro Tyr Ile Leu Thr Val Pro
245 250 255

Gly His Leu Asp Glu Met Gln Leu Asp Ile Gln Ala Arg Tyr Ile Tyr
260 265 270

Gly Lys Pro Val Gln Gly Val Ala Tyr Val Arg Phe Gly Leu Leu Asp
275 280 285

Glu Asp Gly Lys Lys Thr Phe Phe Arg Gly Leu Glu Ser Gln Thr Lys
290 295 300

Leu Val Asn Gly Gln Ser His Ile Ser Leu Ser Lys Ala Glu Phe Gln
305 310 315 320

Asp Ala Leu Glu Lys Leu Asn Met Gly Ile Thr Asp Leu Gln Gly Leu
325 330 335

Arg Leu Tyr Val Ala Ala Ala Ile Ile Glu Ser Pro Gly Gly Glu Met
340 345 350

Glu Glu Ala Glu Leu Thr Ser Trp Tyr Phe Val Ser Ser Pro Phe Ser
355 360 365

Leu Asp Leu Ser Lys Thr Lys Arg His Leu Val Pro Gly Ala Pro Phe
370 375 380

Leu Leu Gln Ala Leu Val Arg Glu Met Ser Gly Ser Pro Ala Ser Gly
385 390 395 400

Ile Pro Val Lys Val Ser Ala Thr Val Ser Ser Pro Gly Ser Val Pro
405 410 415

Glu Val Gln Asp Ile Gln Gln Asn Thr Asp Gly Ser Gly Gln Val Ser
420 425 430

Ile Pro Ile Ile Ile Pro Gln Thr Ile Ser Glu Leu Gln Leu Ser Val
435 440 445

Ser Ala Gly Ser Pro His Pro Ala Ile Ala Arg Leu Thr Val Ala Ala
450 455 460

Pro Pro Ser Gly Gly Pro Gly Phe Leu Ser Ile Glu Arg Pro Asp Ser
465 470 475 480

Arg Pro Pro Arg Val Gly Asp Thr Leu Asn Leu Asn Leu Arg Ala Val
485 490 495

Gly Ser Gly Ala Thr Phe Ser His Tyr Tyr Tyr Met Ile Leu Ser Arg
500 505 510

Gly Gln Ile Val Phe Met Asn Arg Glu Pro Lys Arg Thr Leu Thr Ser

515 520 525

Val Ser Val Phe Val Asp His His Leu Ala Pro Ser Phe Tyr Phe Val
530 535 540

Ala Phe Tyr Tyr His Gly Asp His Pro Val Ala Asn Ser Leu Arg Val
545 550 555 560

Asp Val Gln Ala Gly Ala Cys Glu Gly Lys Leu Glu Leu Ser Val Asp
565 570 575

Gly Ala Lys Gln Tyr Arg Asn Gly Glu Ser Val Lys Leu His Leu Glu
580 585 590

Thr Asp Ser Leu Ala Leu Val Ala Leu Gly Ala Leu Asp Thr Ala Leu
595 600 605

Tyr Ala Ala Gly Ser Lys Ser His Lys Pro Leu Asn Met Gly Lys Val
610 615 620

Phe Glu Ala Met Asn Ser Tyr Asp Leu Gly Cys Gly Pro Gly Gly Gly
625 630 635 640

Asp Ser Ala Leu Gln Val Phe Gln Ala Ala Gly Leu Ala Phe Ser Asp
645 650 655

Gly Asp Gln Trp Thr Leu Ser Arg Lys Arg Leu Ser Cys Pro Lys Glu
660 665 670

Lys Thr Thr Arg Lys Lys Arg Asn Val Asn Phe Gln Lys Ala Ile Asn
675 680 685

Glu Lys Leu Gly Gln Tyr Ala Ser Pro Thr Ala Lys Arg Cys Cys Gln
690 695 700

Asp Gly Val Thr Arg Leu Pro Met Met Arg Ser Cys Glu Gln Arg Ala
705 710 715 720

Ala Arg Val Gln Gln Pro Asp Cys Arg Glu Pro Phe Leu Ser Cys Cys
725 730 735

Gln Phe Ala Glu Ser Leu Arg Lys Lys Ser Arg Asp Lys Gly Gln Ala
740 745 750

Gly Leu Gln Arg Ala Leu Glu Ile Leu Gln Glu Glu Asp Leu Ile Asp
755 760 765

Glu Asp Asp Ile Pro Val Arg Ser Phe Phe Pro Glu Asn Trp Leu Trp
770 775 780

Arg Val Glu Thr Val Asp Arg Phe Gln Ile Leu Thr Leu Trp Leu Pro
785 790 795 800

Asp Ser Leu Thr Thr Trp Glu Ile His Gly Leu Ser Leu Ser Lys Thr
805 810 815

Lys Gly Leu Cys Val Ala Thr Pro Val Gln Leu Arg Val Phe Arg Glu
820 825 830

Phe His Leu His Leu Arg Leu Pro Met Ser Val Arg Arg Phe Glu Gln
835 840 845

Leu Glu Leu Arg Pro Val Leu Tyr Asn Tyr Leu Asp Lys Asn Leu Thr
850 855 860

Val Ser Val His Val Ser Pro Val Glu Gly Leu Cys Leu Ala Gly Gly
865 870 875 880

Gly Gly Leu Ala Gln Gln Val Leu Val Pro Ala Gly Ser Ala Arg Pro
885 890 895

Val Ala Phe Ser Val Val Pro Thr Ala Ala Ala Ala Val Ser Leu Lys
900 905 910

Val Val Ala Arg Gly Ser Phe Glu Phe Pro Val Gly Asp Ala Val Ser
915 920 925

Lys Val Leu Gln Ile Glu Lys Glu Gly Ala Ile His Arg Glu Glu Leu
930 935 940

Val Tyr Glu Leu Asn Pro Leu Asp His Arg Gly Arg Thr Leu Glu Ile
945 950 955 960

Pro Gly Asn Ser Asp Pro Asn Met Ile Pro Asp Gly Asp Phe Asn Ser
965 970 975

Tyr Val Arg Val Thr Ala Ser Asp Pro Leu Asp Thr Leu Gly Ser Glu
980 985 990

Gly Ala Leu Ser Pro Gly Gly Val Ala Ser Leu Leu Arg Leu Pro Arg
995 1000 1005

Gly Cys Gly Glu Gln Thr Met Ile Tyr Leu Ala Pro Thr Leu Ala
1010 1015 1020

Ala Ser Arg Tyr Leu Asp Lys Thr Glu Gln Trp Ser Thr Leu Pro
1025 1030 1035

Pro Glu Thr Lys Asp His Ala Val Asp Leu Ile Gln Lys Gly Tyr
1040 1045 1050

Met Arg Ile Gln Gln Phe Arg Lys Ala Asp Gly Ser Tyr Ala Ala
1055 1060 1065

Trp Leu Ser Arg Asp Ser Ser Thr Trp Leu Thr Ala Phe Val Leu

1070 1075 1080

Lys Val Leu Ser Leu Ala Gln Glu Gln Val Gly Gly Ser Pro Glu
1085 1090 1095

Lys Leu Gln Glu Thr Ser Asn Trp Leu Leu Ser Gln Gln Gln Ala
1100 1105 1110

Asp Gly Ser Phe Gln Asp Pro Cys Pro Val Leu Asp Arg Ser Met
1115 1120 1125

Gln Gly Gly Leu Val Gly Asn Asp Glu Thr Val Ala Leu Thr Ala
1130 1135 1140

Phe Val Thr Ile Ala Leu His His Gly Leu Ala Val Phe Gln Asp
1145 1150 1155

Glu Gly Ala Glu Pro Leu Lys Gln Arg Val Glu Ala Ser Ile Ser
1160 1165 1170

Lys Ala Asn Ser Phe Leu Gly Glu Lys Ala Ser Ala Gly Leu Leu
1175 1180 1185

Gly Ala His Ala Ala Ala Ile Thr Ala Tyr Ala Leu Ser Leu Thr
1190 1195 1200

Lys Ala Pro Val Asp Leu Leu Gly Val Ala His Asn Asn Leu Met
1205 1210 1215

Ala Met Ala Gln Glu Thr Gly Asp Asn Leu Tyr Trp Gly Ser Val
1220 1225 1230

Thr Gly Ser Gln Ser Asn Ala Val Ser Pro Thr Pro Ala Pro Arg
1235 1240 1245

Asn Pro Ser Asp Pro Met Pro Gln Ala Pro Ala Leu Trp Ile Glu
1250 1255 1260

Thr Thr Ala Tyr Ala Leu Leu His Leu Leu Leu His Glu Gly Lys
1265 1270 1275

Ala Glu Met Ala Asp Gln Ala Ser Ala Trp Leu Thr Arg Gln Gly
1280 1285 1290

Ser Phe Gln Gly Gly Phe Arg Ser Thr Gln Asp Thr Val Ile Ala
1295 1300 1305

Leu Asp Ala Leu Ser Ala Tyr Trp Ile Ala Ser His Thr Thr Glu
1310 1315 1320

Glu Arg Gly Leu Asn Val Thr Leu Ser Ser Thr Gly Arg Asn Gly
1325 1330 1335

Phe Lys Ser His Ala Leu Gln Leu Asn Asn Arg Gln Ile Arg Gly
1340 1345 1350

Leu Glu Glu Glu Leu Gln Phe Ser Leu Gly Ser Lys Ile Asn Val
1355 1360 1365

Lys Val Gly Gly Asn Ser Lys Gly Thr Leu Lys Val Leu Arg Thr
1370 1375 1380

Tyr Asn Val Leu Asp Met Lys Asn Thr Thr Cys Gln Asp Leu Gln
1385 1390 1395

Ile Glu Val Thr Val Lys Gly His Val Glu Tyr Thr Met Glu Ala
1400 1405 1410

Asn Glu Asp Tyr Glu Asp Tyr Glu Tyr Asp Glu Leu Pro Ala Lys
1415 1420 1425

Asp Asp Pro Asp Ala Pro Leu Gln Pro Val Thr Pro Leu Gln Leu
1430 1435 1440

Phe Glu Gly Arg Arg Asn Arg Arg Arg Arg Glu Ala Pro Lys Val
1445 1450 1455

Val Glu Glu Gln Glu Ser Arg Val His Tyr Thr Val Cys Ile Trp
1460 1465 1470

Arg Asn Gly Lys Val Gly Leu Ser Gly Met Ala Ile Ala Asp Val
1475 1480 1485

Thr Leu Leu Ser Gly Phe His Ala Leu Arg Ala Asp Leu Glu Lys
1490 1495 1500

Leu Thr Ser Leu Ser Asp Arg Tyr Val Ser His Phe Glu Thr Glu
1505 1510 1515

Gly Pro His Val Leu Leu Tyr Phe Asp Ser Val Pro Thr Ser Arg
1520 1525 1530

Glu Cys Val Gly Phe Glu Ala Val Gln Glu Val Pro Val Gly Leu
1535 1540 1545

Val Gln Pro Ala Ser Ala Thr Leu Tyr Asp Tyr Tyr Asn Pro Glu
1550 1555 1560

Arg Arg Cys Ser Val Phe Tyr Gly Ala Pro Ser Lys Ser Arg Leu
1565 1570 1575

Leu Ala Thr Leu Cys Ser Ala Glu Val Cys Gln Cys Ala Glu Gly
1580 1585 1590

Lys Cys Pro Arg Gln Arg Arg Ala Leu Glu Arg Gly Leu Gln Asp

1595 1600 1605

Glu Asp Gly Tyr Arg Met Lys Phe Ala Cys Tyr Tyr Pro Arg Val
1610 1615 1620

Glu Tyr Gly Phe Gln Val Lys Val Leu Arg Glu Asp Ser Arg Ala
1625 1630 1635

Ala Phe Arg Leu Phe Glu Thr Lys Ile Thr Gln Val Leu His Phe
1640 1645 1650

Thr Lys Asp Val Lys Ala Ala Ala Asn Gln Met Arg Asn Phe Leu
1655 1660 1665

Val Arg Ala Ser Cys Arg Leu Arg Leu Glu Pro Gly Lys Glu Tyr
1670 1675 1680

Leu Ile Met Gly Leu Asp Gly Ala Thr Tyr Asp Leu Glu Gly His
1685 1690 1695

Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met Pro
1700 1705 1710

Ser Glu Arg Leu Cys Arg Ser Thr Arg Gln Arg Ala Ala Cys Ala
1715 1720 1725

Gln Leu Asn Asp Phe Leu Gln Glu Tyr Gly Thr Gln Gly Cys Gln
1730 1735 1740

Val

<210> 44
<211> 1663
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P01024
<309> 1986-07-21
<313> (1)..(1663)

<400> 44

Met Gly Pro Thr Ser Gly Pro Ser Leu Leu Leu Leu Leu Leu Thr His
1 5 10 15

Leu Pro Leu Ala Leu Gly Ser Pro Met Tyr Ser Ile Ile Thr Pro Asn
20 25 30

Ile Leu Arg Leu Glu Ser Glu Glu Thr Met Val Leu Glu Ala His Asp
35 40 45

Ala Gln Gly Asp Val Pro Val Thr Val Thr Val His Asp Phe Pro Gly
50 55 60

Lys Lys Leu Val Leu Ser Ser Glu Lys Thr Val Leu Thr Pro Ala Thr
65 70 75 80

Asn His Met Gly Asn Val Thr Phe Thr Ile Pro Ala Asn Arg Glu Phe
85 90 95

Lys Ser Glu Lys Gly Arg Asn Lys Phe Val Thr Val Gln Ala Thr Phe
100 105 110

Gly Thr Gln Val Val Glu Lys Val Val Leu Val Ser Leu Gln Ser Gly
115 120 125

Tyr Leu Phe Ile Gln Thr Asp Lys Thr Ile Tyr Thr Pro Gly Ser Thr
130 135 140

Val Leu Tyr Arg Ile Phe Thr Val Asn His Lys Leu Leu Pro Val Gly
145 150 155 160

Arg Thr Val Met Val Asn Ile Glu Asn Pro Glu Gly Ile Pro Val Lys
165 170 175

Gln Asp Ser Leu Ser Ser Gln Asn Gln Leu Gly Val Leu Pro Leu Ser
180 185 190

Trp Asp Ile Pro Glu Leu Val Asn Met Gly Gln Trp Lys Ile Arg Ala
195 200 205

Tyr Tyr Glu Asn Ser Pro Gln Gln Val Phe Ser Thr Glu Phe Glu Val
210 215 220

Lys Glu Tyr Val Leu Pro Ser Phe Glu Val Ile Val Glu Pro Thr Glu
225 230 235 240

Lys Phe Tyr Tyr Ile Tyr Asn Glu Lys Gly Leu Glu Val Thr Ile Thr
245 250 255

Ala Arg Phe Leu Tyr Gly Lys Lys Val Glu Gly Thr Ala Phe Val Ile
260 265 270

Phe Gly Ile Gln Asp Gly Glu Gln Arg Ile Ser Leu Pro Glu Ser Leu
275 280 285

Lys Arg Ile Pro Ile Glu Asp Gly Ser Gly Glu Val Val Leu Ser Arg
290 295 300

Lys Val Leu Leu Asp Gly Val Gln Asn Leu Arg Ala Glu Asp Leu Val
305 310 315 320

Gly Lys Ser Leu Tyr Val Ser Ala Thr Val Ile Leu His Ser Gly Ser
325 330 335

Asp Met Val Gln Ala Glu Arg Ser Gly Ile Pro Ile Val Thr Ser Pro

340 345 350

Tyr Gln Ile His Phe Thr Lys Thr Pro Lys Tyr Phe Lys Pro Gly Met
355 360 365

Pro Phe Asp Leu Met Val Phe Val Thr Asn Pro Asp Gly Ser Pro Ala
370 375 380

Tyr Arg Val Pro Val Ala Val Gln Gly Glu Asp Thr Val Gln Ser Leu
385 390 395 400

Thr Gln Gly Asp Gly Val Ala Lys Leu Ser Ile Asn Thr His Pro Ser
405 410 415

Gln Lys Pro Leu Ser Ile Thr Val Arg Thr Lys Lys Gln Glu Leu Ser
420 425 430

Glu Ala Glu Gln Ala Thr Arg Thr Met Gln Ala Leu Pro Tyr Ser Thr
435 440 445

Val Gly Asn Ser Asn Asn Tyr Leu His Leu Ser Val Leu Arg Thr Glu
450 455 460

Leu Arg Pro Gly Glu Thr Leu Asn Val Asn Phe Leu Leu Arg Met Asp
465 470 475 480

Arg Ala His Glu Ala Lys Ile Arg Tyr Tyr Thr Tyr Leu Ile Met Asn
485 490 495

Lys Gly Arg Leu Leu Lys Ala Gly Arg Gln Val Arg Glu Pro Gly Gln
500 505 510

Asp Leu Val Val Leu Pro Leu Ser Ile Thr Thr Asp Phe Ile Pro Ser
515 520 525

Phe Arg Leu Val Ala Tyr Tyr Thr Leu Ile Gly Ala Ser Gly Gln Arg
530 535 540

Glu Val Val Ala Asp Ser Val Trp Val Asp Val Lys Asp Ser Cys Val
545 550 555 560

Gly Ser Leu Val Val Lys Ser Gly Gln Ser Glu Asp Arg Gln Pro Val
565 570 575

Pro Gly Gln Gln Met Thr Leu Lys Ile Glu Gly Asp His Gly Ala Arg
580 585 590

Val Val Leu Val Ala Val Asp Lys Gly Val Phe Val Leu Asn Lys Lys
595 600 605

Asn Lys Leu Thr Gln Ser Lys Ile Trp Asp Val Val Glu Lys Ala Asp
610 615 620

Ile Gly Cys Thr Pro Gly Ser Gly Lys Asp Tyr Ala Gly Val Phe Ser
625 630 635 640

Asp Ala Gly Leu Thr Phe Thr Ser Ser Ser Gly Gln Gln Thr Ala Gln
645 650 655

Arg Ala Glu Leu Gln Cys Pro Gln Pro Ala Ala Arg Arg Arg Arg Ser
660 665 670

Val Gln Leu Thr Glu Lys Arg Met Asp Lys Val Gly Lys Tyr Pro Lys
675 680 685

Glu Leu Arg Lys Cys Cys Glu Asp Gly Met Arg Glu Asn Pro Met Arg
690 695 700

Phe Ser Cys Gln Arg Arg Thr Arg Phe Ile Ser Leu Gly Glu Ala Cys
705 710 715 720

Lys Lys Val Phe Leu Asp Cys Cys Asn Tyr Ile Thr Glu Leu Arg Arg
725 730 735

Gln His Ala Arg Ala Ser His Leu Gly Leu Ala Arg Ser Asn Leu Asp
740 745 750

Glu Asp Ile Ile Ala Glu Glu Asn Ile Val Ser Arg Ser Glu Phe Pro
755 760 765

Glu Ser Trp Leu Trp Asn Val Glu Asp Leu Lys Glu Pro Pro Lys Asn
770 775 780

Gly Ile Ser Thr Lys Leu Met Asn Ile Phe Leu Lys Asp Ser Ile Thr
785 790 795 800

Thr Trp Glu Ile Leu Ala Val Ser Met Ser Asp Lys Lys Gly Ile Cys
805 810 815

Val Ala Asp Pro Phe Glu Val Thr Val Met Gln Asp Phe Phe Ile Asp
820 825 830

Leu Arg Leu Pro Tyr Ser Val Val Arg Asn Glu Gln Val Glu Ile Arg
835 840 845

Ala Val Leu Tyr Asn Tyr Arg Gln Asn Gln Glu Leu Lys Val Arg Val
850 855 860

Glu Leu Leu His Asn Pro Ala Phe Cys Ser Leu Ala Thr Thr Lys Arg
865 870 875 880

Arg His Gln Gln Thr Val Thr Ile Pro Pro Lys Ser Ser Leu Ser Val
885 890 895

Pro Tyr Val Ile Val Pro Leu Lys Thr Gly Leu Gln Glu Val Glu Val

900 905 910

Lys Ala Ala Val Tyr His His Phe Ile Ser Asp Gly Val Arg Lys Ser
915 920 925

Leu Lys Val Val Pro Glu Gly Ile Arg Met Asn Lys Thr Val Ala Val
930 935 940

Arg Thr Leu Asp Pro Glu Arg Leu Gly Arg Glu Gly Val Gln Lys Glu
945 950 955 960

Asp Ile Pro Pro Ala Asp Leu Ser Asp Gln Val Pro Asp Thr Glu Ser
965 970 975

Glu Thr Arg Ile Leu Leu Gln Gly Thr Pro Val Ala Gln Met Thr Glu
980 985 990

Asp Ala Val Asp Ala Glu Arg Leu Lys His Leu Ile Val Thr Pro Ser
995 1000 1005

Gly Cys Gly Glu Gln Asn Met Ile Gly Met Thr Pro Thr Val Ile
1010 1015 1020

Ala Val His Tyr Leu Asp Glu Thr Glu Gln Trp Glu Lys Phe Gly
1025 1030 1035

Leu Glu Lys Arg Gln Gly Ala Leu Glu Leu Ile Lys Lys Gly Tyr
1040 1045 1050

Thr Gln Gln Leu Ala Phe Arg Gln Pro Ser Ser Ala Phe Ala Ala
1055 1060 1065

Phe Val Lys Arg Ala Pro Ser Thr Trp Leu Thr Ala Tyr Val Val
1070 1075 1080

Lys Val Phe Ser Leu Ala Val Asn Leu Ile Ala Ile Asp Ser Gln
1085 1090 1095

Val Leu Cys Gly Ala Val Lys Trp Leu Ile Leu Glu Lys Gln Lys
1100 1105 1110

Pro Asp Gly Val Phe Gln Glu Asp Ala Pro Val Ile His Gln Glu
1115 1120 1125

Met Ile Gly Gly Leu Arg Asn Asn Asn Glu Lys Asp Met Ala Leu
1130 1135 1140

Thr Ala Phe Val Leu Ile Ser Leu Gln Glu Ala Lys Asp Ile Cys
1145 1150 1155

Glu Glu Gln Val Asn Ser Leu Pro Gly Ser Ile Thr Lys Ala Gly
1160 1165 1170

Asp Phe Leu Glu Ala Asn Tyr Met Asn Leu Gln Arg Ser Tyr Thr
1175 1180 1185

Val Ala Ile Ala Gly Tyr Ala Leu Ala Gln Met Gly Arg Leu Lys
1190 1195 1200

Gly Pro Leu Leu Asn Lys Phe Leu Thr Thr Ala Lys Asp Lys Asn
1205 1210 1215

Arg Trp Glu Asp Pro Gly Lys Gln Leu Tyr Asn Val Glu Ala Thr
1220 1225 1230

Ser Tyr Ala Leu Leu Ala Leu Leu Gln Leu Lys Asp Phe Asp Phe
1235 1240 1245

Val Pro Pro Val Val Arg Trp Leu Asn Glu Gln Arg Tyr Tyr Gly
1250 1255 1260

Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe Gln Ala
1265 1270 1275

Leu Ala Gln Tyr Gln Lys Asp Ala Pro Asp His Gln Glu Leu Asn
1280 1285 1290

Leu Asp Val Ser Leu Gln Leu Pro Ser Arg Ser Ser Lys Ile Thr
1295 1300 1305

His Arg Ile His Trp Glu Ser Ala Ser Leu Leu Arg Ser Glu Glu
1310 1315 1320

Thr Lys Glu Asn Glu Gly Phe Thr Val Thr Ala Glu Gly Lys Gly
1325 1330 1335

Gln Gly Thr Leu Ser Val Val Thr Met Tyr His Ala Lys Ala Lys
1340 1345 1350

Asp Gln Leu Thr Cys Asn Lys Phe Asp Leu Lys Val Thr Ile Lys
1355 1360 1365

Pro Ala Pro Glu Thr Glu Lys Arg Pro Gln Asp Ala Lys Asn Thr
1370 1375 1380

Met Ile Leu Glu Ile Cys Thr Arg Tyr Arg Gly Asp Gln Asp Ala
1385 1390 1395

Thr Met Ser Ile Leu Asp Ile Ser Met Met Thr Gly Phe Ala Pro
1400 1405 1410

Asp Thr Asp Asp Leu Lys Gln Leu Ala Asn Gly Val Asp Arg Tyr
1415 1420 1425

Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp Arg Asn Thr

1430 1435 1440

Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp Asp Cys
1445 1450 1455

Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile Gln
1460 1465 1470

Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser
1475 1480 1485

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn
1490 1495 1500

Lys Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys
1505 1510 1515

Phe Ile Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu
1520 1525 1530

Asp Lys Ala Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg
1535 1540 1545

Leu Val Lys Val Gln Leu Ser Asn Asp Phe Asp Glu Tyr Ile Met
1550 1555 1560

Ala Ile Glu Gln Thr Ile Lys Ser Gly Ser Asp Glu Val Gln Val
1565 1570 1575

Gly Gln Gln Arg Thr Phe Ile Ser Pro Ile Lys Cys Arg Glu Ala
1580 1585 1590

Leu Lys Leu Glu Glu Lys Lys His Tyr Leu Met Trp Gly Leu Ser
1595 1600 1605

Ser Asp Phe Trp Gly Glu Lys Pro Asn Leu Ser Tyr Ile Ile Gly
1610 1615 1620

Lys Asp Thr Trp Val Glu His Trp Pro Glu Glu Asp Glu Cys Gln
1625 1630 1635

Asp Glu Glu Asn Gln Lys Gln Cys Gln Asp Leu Gly Ala Phe Thr
1640 1645 1650

Glu Ser Met Val Val Phe Gly Cys Pro Asn
1655 1660

<210> 45
<211> 93
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/Q9H299

<309> 2003-02-28
<313> (1)..(93)

<400> 45

Met Ser Gly Leu Arg Val Tyr Ser Thr Ser Val Thr Gly Ser Arg Glu
1 5 10 15

Ile Lys Ser Gln Gln Ser Glu Val Thr Arg Ile Leu Asp Gly Lys Arg
20 25 30

Ile Gln Tyr Gln Leu Val Asp Ile Ser Gln Asp Asn Ala Leu Arg Asp
35 40 45

Glu Met Arg Ala Leu Ala Gly Asn Pro Lys Ala Thr Pro Pro Gln Ile
50 55 60

Val Asn Gly Asp Gln Tyr Cys Gly Asp Tyr Glu Leu Phe Val Glu Ala
65 70 75 80

Val Glu Gln Asn Thr Leu Gln Glu Phe Leu Lys Leu Ala
85 90

<210> 46
<211> 567
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/Q96RQ9
<309> 2003-02-28
<313> (1)..(567)

<400> 46

Met Ala Pro Leu Ala Leu His Leu Leu Val Leu Val Pro Ile Leu Leu
1 5 10 15

Ser Leu Val Ala Ser Gln Asp Trp Lys Ala Glu Arg Ser Gln Asp Pro
20 25 30

Phe Glu Lys Cys Met Gln Asp Pro Asp Tyr Glu Gln Leu Leu Lys Val
35 40 45

Val Thr Trp Gly Leu Asn Arg Thr Leu Lys Pro Gln Arg Val Ile Val
50 55 60

Val Gly Ala Gly Val Ala Gly Leu Val Ala Ala Lys Val Leu Ser Asp
65 70 75 80

Ala Gly His Lys Val Thr Ile Leu Glu Ala Asp Asn Arg Ile Gly Gly
85 90 95

Arg Ile Phe Thr Tyr Arg Asp Gln Asn Thr Gly Trp Ile Gly Glu Leu
100 105 110

Gly Ala Met Arg Met Pro Ser Ser His Arg Ile Leu His Lys Leu Cys

115 120 125

Gln Gly Leu Gly Leu Asn Leu Thr Lys Phe Thr Gln Tyr Asp Lys Asn
130 135 140

Thr Trp Thr Glu Val His Glu Val Lys Leu Arg Asn Tyr Val Val Glu
145 150 155 160

Lys Val Pro Glu Lys Leu Gly Tyr Ala Leu Arg Pro Gln Glu Lys Gly
165 170 175

His Ser Pro Glu Asp Ile Tyr Gln Met Ala Leu Asn Gln Ala Leu Lys
180 185 190

Asp Leu Lys Ala Leu Gly Cys Arg Lys Ala Met Lys Lys Phe Glu Arg
195 200 205

His Thr Leu Leu Glu Tyr Leu Leu Gly Glu Gly Asn Leu Ser Arg Pro
210 215 220

Ala Val Gln Leu Leu Gly Asp Val Met Ser Glu Asp Gly Phe Phe Tyr
225 230 235 240

Leu Ser Phe Ala Glu Ala Leu Arg Ala His Ser Cys Leu Ser Asp Arg
245 250 255

Leu Gln Tyr Ser Arg Ile Val Gly Gly Trp Asp Leu Leu Pro Arg Ala
260 265 270

Leu Leu Ser Ser Leu Ser Gly Leu Val Leu Leu Asn Ala Pro Val Val
275 280 285

Ala Met Thr Gln Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser
290 295 300

Pro Pro Ala Arg Asn Leu Lys Val Leu Lys Ala Asp Val Val Leu Leu
305 310 315 320

Thr Ala Ser Gly Pro Ala Val Lys Arg Ile Thr Phe Ser Pro Pro Leu
325 330 335

Pro Arg His Met Gln Glu Ala Leu Arg Arg Leu His Tyr Val Pro Ala
340 345 350

Thr Lys Val Phe Leu Ser Phe Arg Arg Pro Phe Trp Arg Glu Glu His
355 360 365

Ile Glu Gly Gly His Ser Asn Thr Asp Arg Pro Ser Arg Met Ile Phe
370 375 380

Tyr Pro Pro Pro Arg Glu Gly Ala Leu Leu Leu Ala Ser Tyr Thr Trp
385 390 395 400

Ser Asp Ala Ala Ala Ala Phe Ala Gly Leu Ser Arg Glu Glu Ala Leu
405 410 415

Arg Leu Ala Leu Asp Asp Val Ala Ala Leu His Gly Pro Val Val Arg
420 425 430

Gln Leu Trp Asp Gly Thr Gly Val Val Lys Arg Trp Ala Glu Asp Gln
435 440 445

His Ser Gln Gly Gly Phe Val Val Gln Pro Pro Ala Leu Trp Gln Thr
450 455 460

Glu Lys Asp Asp Trp Thr Val Pro Tyr Gly Arg Ile Tyr Phe Ala Gly
465 470 475 480

Glu His Thr Ala Tyr Pro His Gly Trp Val Glu Thr Ala Val Lys Ser
485 490 495

Ala Leu Arg Ala Ala Ile Lys Ile Asn Ser Arg Lys Gly Pro Ala Ser
500 505 510

Asp Thr Ala Ser Pro Glu Gly His Ala Ser Asp Met Glu Gly Gln Gly
515 520 525

His Val His Gly Val Ala Ser Ser Pro Ser His Asp Leu Ala Lys Glu
530 535 540

Glu Gly Ser His Pro Pro Val Gln Gly Gln Leu Ser Leu Gln Asn Thr
545 550 555 560

Thr His Thr Arg Thr Ser His
565

<210> 47
<211> 462
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P02790
<309> 1986-07-21
<313> (1)..(462)

<400> 47

Met Ala Arg Val Leu Gly Ala Pro Val Ala Leu Gly Leu Trp Ser Leu
1 5 10 15

Cys Trp Ser Leu Ala Ile Ala Thr Pro Leu Pro Pro Thr Ser Ala His
20 25 30

Gly Asn Val Ala Glu Gly Glu Thr Lys Pro Asp Pro Asp Val Thr Glu
35 40 45

Arg Cys Ser Asp Gly Trp Ser Phe Asp Ala Thr Thr Leu Asp Asp Asn

50 55 60

Gly Thr Met Leu Phe Phe Lys Gly Glu Phe Val Trp Lys Ser His Lys
65 70 75 80

Trp Asp Arg Glu Leu Ile Ser Glu Arg Trp Lys Asn Phe Pro Ser Pro
85 90 95

Val Asp Ala Ala Phe Arg Gln Gly His Asn Ser Val Phe Leu Ile Lys
100 105 110

Gly Asp Lys Val Trp Val Tyr Pro Pro Glu Lys Lys Glu Lys Gly Tyr
115 120 125

Pro Lys Leu Leu Gln Asp Glu Phe Pro Gly Ile Pro Ser Pro Leu Asp
130 135 140

Ala Ala Val Glu Cys His Arg Gly Glu Cys Gln Ala Glu Gly Val Leu
145 150 155 160

Phe Phe Gln Gly Asp Arg Glu Trp Phe Trp Asp Leu Ala Thr Gly Thr
165 170 175

Met Lys Glu Arg Ser Trp Pro Ala Val Gly Asn Cys Ser Ser Ala Leu
180 185 190

Arg Trp Leu Gly Arg Tyr Tyr Cys Phe Gln Gly Asn Gln Phe Leu Arg
195 200 205

Phe Asp Pro Val Arg Gly Glu Val Pro Pro Arg Tyr Pro Arg Asp Val
210 215 220

Arg Asp Tyr Phe Met Pro Cys Pro Gly Arg Gly His Gly His Arg Asn
225 230 235 240

Gly Thr Gly His Gly Asn Ser Thr His His Gly Pro Glu Tyr Met Arg
245 250 255

Cys Ser Pro His Leu Val Leu Ser Ala Leu Thr Ser Asp Asn His Gly
260 265 270

Ala Thr Tyr Ala Phe Ser Gly Thr His Tyr Trp Arg Leu Asp Thr Ser
275 280 285

Arg Asp Gly Trp His Ser Trp Pro Ile Ala His Gln Trp Pro Gln Gly
290 295 300

Pro Ser Ala Val Asp Ala Ala Phe Ser Trp Glu Glu Lys Leu Tyr Leu
305 310 315 320

Val Gln Gly Thr Gln Val Tyr Val Phe Leu Thr Lys Gly Gly Tyr Thr
325 330 335

Leu Val Ser Gly Tyr Pro Lys Arg Leu Glu Lys Glu Val Gly Thr Pro
340 345 350

His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile Cys Pro Gly
355 360 365

Ser Ser Arg Leu His Ile Met Ala Gly Arg Arg Leu Trp Trp Leu Asp
370 375 380

Leu Lys Ser Gly Ala Gln Ala Thr Trp Thr Glu Leu Pro Trp Pro His
385 390 395 400

Glu Lys Val Asp Gly Ala Leu Cys Met Glu Lys Ser Leu Gly Pro Asn
405 410 415

Ser Cys Ser Ala Asn Gly Pro Gly Leu Tyr Leu Ile His Gly Pro Asn
420 425 430

Leu Tyr Cys Tyr Ser Asp Val Glu Lys Leu Asn Ala Ala Lys Ala Leu
435 440 445

Pro Gln Pro Gln Asn Val Thr Ser Leu Leu Gly Cys Thr His
450 455 460

<210> 48
<211> 369
<212> PRT
<213> Homo sapiens

<300>
<308> Swiss-Prot/P50502
<309> 1996-10-02
<313> (1)..(369)

<400> 48

Met Asp Pro Arg Lys Val Asn Glu Leu Arg Ala Phe Val Lys Met Cys
1 5 10 15

Lys Gln Asp Pro Ser Val Leu His Thr Glu Glu Met Arg Phe Leu Arg
20 25 30

Glu Trp Val Glu Ser Met Gly Gly Lys Val Pro Pro Ala Thr Gln Lys
35 40 45

Ala Lys Ser Glu Glu Asn Thr Lys Glu Glu Lys Pro Asp Ser Lys Lys
50 55 60

Val Glu Glu Asp Leu Lys Ala Asp Glu Pro Ser Ser Glu Glu Ser Asp
65 70 75 80

Leu Glu Ile Asp Lys Glu Gly Val Ile Glu Pro Asp Thr Asp Ala Pro
85 90 95

Gln Glu Met Gly Asp Glu Asn Ala Glu Ile Thr Glu Glu Met Met Asp

100 105 110

Gln Ala Asn Asp Lys Lys Val Ala Ala Ile Glu Ala Leu Asn Asp Gly
115 120 125

Glu Leu Gln Lys Ala Ile Asp Leu Phe Thr Asp Ala Ile Lys Leu Asn
130 135 140

Pro Arg Leu Ala Ile Leu Tyr Ala Lys Arg Ala Ser Val Phe Val Lys
145 150 155 160

Leu Gln Lys Pro Asn Ala Ala Ile Arg Asp Cys Asp Arg Ala Ile Glu
165 170 175

Ile Asn Pro Asp Ser Ala Gln Pro Tyr Lys Trp Arg Gly Lys Ala His
180 185 190

Arg Leu Leu Gly His Trp Glu Glu Ala Ala His Asp Leu Ala Leu Ala
195 200 205

Cys Lys Leu Asp Tyr Asp Glu Asp Ala Ser Ala Met Leu Lys Glu Val
210 215 220

Gln Pro Arg Ala Gln Lys Ile Ala Glu His Arg Arg Lys Tyr Glu Arg
225 230 235 240

Lys Arg Glu Glu Arg Glu Ile Lys Glu Arg Ile Glu Arg Val Lys Lys
245 250 255

Ala Arg Glu Glu His Glu Arg Ala Gln Arg Glu Glu Glu Ala Arg Arg
260 265 270

Gln Ser Gly Ala Gln Tyr Gly Ser Phe Pro Gly Gly Phe Pro Gly Gly
275 280 285

Met Pro Gly Asn Phe Pro Gly Gly Met Pro Gly Met Gly Gly Gly Met
290 295 300

Pro Gly Met Ala Gly Met Pro Gly Leu Asn Glu Ile Leu Ser Asp Pro
305 310 315 320

Glu Val Leu Ala Ala Met Gln Asp Pro Glu Val Met Val Ala Phe Gln
325 330 335

Asp Val Ala Gln Asn Pro Ala Asn Met Ser Lys Tyr Gln Ser Asn Pro
340 345 350

Lys Val Met Asn Leu Ile Ser Lys Leu Ser Ala Lys Phe Gly Gly Gln
355 360 365

Ala

<210> 49
<211> 9
<212> PRT
<213> Homo sapiens

<400> 49

Met Gln Leu Met His Ala Asn Ala Gln
1 5

<210> 50
<211> 9
<212> PRT
<213> Homo sapiens

<400> 50

Leu Thr Leu Asp Ser Asn Thr Lys Tyr
1 5

<210> 51
<211> 9
<212> PRT
<213> Homo sapiens

<400> 51

Phe Val Ile Asp Lys Ser Gly Ser Met
1 5

<210> 52
<211> 9
<212> PRT
<213> Homo sapiens

<400> 52

Tyr Leu Leu Asp Ser Asn Ser Trp Ile
1 5

<210> 53
<211> 9
<212> PRT
<213> Homo sapiens

<400> 53

Tyr Glu Leu Asp Lys Ala Phe Ser Asp
1 5

<210> 54
<211> 9
<212> PRT
<213> Homo sapiens

<400> 54

Ile Lys Ser Gln Gln Ser Glu Val Thr
1 5

<210> 55
<211> 9
<212> PRT

<213> Homo sapiens

<400> 55

Val Gln Ile Glu Thr Ser Pro Pro Ala
1 5

<210> 56
<211> 9
<212> PRT
<213> Homo sapiens

<400> 56

Ile Ile Leu Asp Ser Val Asp Ala Ala
1 5

<210> 57
<211> 9
<212> PRT
<213> Homo sapiens

<400> 57

Ile Glu Pro Asp Thr Asp Ala Pro Gln
1 5

<210> 58
<211> 17
<212> PRT
<213> Homo sapiens

<400> 58

Asn Ile Gln Pro Ile Phe Ala Val Thr Ser Arg Met Val Lys Thr Tyr
1 5 10 15

Glu

<210> 59
<211> 19
<212> PRT
<213> Homo sapiens

<400> 59

Glu Asn Asn Ile Gln Pro Ile Phe Ala Val Thr Ser Arg Met Val Lys
1 5 10 15

Thr Tyr Glu

<210> 60
<211> 17
<212> PRT
<213> Homo sapiens

<400> 60

Asn Lys Val Phe Gly Glu Asp Ser Val Gly Val Ile Phe Lys Asn Gly
1 5 10 15

Asp

<210> 61
<211> 16
<212> PRT
<213> Homo sapiens

<400> 61

Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys Leu Ile Ser His Arg
1 5 10 15

<210> 62
<211> 16
<212> PRT
<213> Homo sapiens

<400> 62

Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
1 5 10 15

<210> 63
<211> 16
<212> PRT
<213> Homo sapiens

<400> 63

Asn Gly Gly His Tyr Thr Tyr Ser Glu Asn Arg Val Glu Lys Asp Gly
1 5 10 15

<210> 64
<211> 15
<212> PRT
<213> Homo sapiens

<400> 64

Gly Pro Asn Asn Tyr Tyr Ser Phe Ala Ser Gln Gln Gln Lys Pro
1 5 10 15

<210> 65
<211> 16
<212> PRT
<213> Homo sapiens

<400> 65

Gly Pro Asn Asn Tyr Tyr Ser Phe Ala Ser Gln Gln Gln Lys Pro Glu
1 5 10 15

<210> 66
<211> 17
<212> PRT
<213> Homo sapiens

<400> 66

Gly Pro Asn Asn Tyr Tyr Ser Phe Ala Ser Gln Gln Gln Lys Pro Glu
1 5 10 15

Asp

<210> 67
<211> 18
<212> PRT
<213> Homo sapiens

<400> 67

Gly Pro Asn Asn Tyr Tyr Ser Phe Ala Ser Gln Gln Gln Lys Pro Glu
1 5 10 15

Asp Thr

<210> 68
<211> 16
<212> PRT
<213> Homo sapiens

<400> 68

Glu Lys Leu Trp Phe Val Pro Ala Lys Val Glu Asp Ser Gly His Tyr
1 5 10 15

<210> 69
<211> 14
<212> PRT
<213> Homo sapiens

<400> 69

Ser Leu Arg Glu Leu His Leu Asp His Asn Gln Ile Ser Arg
1 5 10

<210> 70
<211> 13
<212> PRT
<213> Homo sapiens

<400> 70

Leu Arg Glu Leu His Leu Asp His Asn Gln Ile Ser Arg
1 5 10

<210> 71
<211> 15
<212> PRT
<213> Homo sapiens

<400> 71

Glu Thr Met Lys Met Arg Tyr Glu His Ile Asp His Thr Phe Glu
1 5 10 15

<210> 72
<211> 17
<212> PRT
<213> Homo sapiens

<400> 72

Glu Thr Met Lys Met Arg Tyr Glu His Ile Asp His Thr Phe Glu Ile
1 5 10 15

Gln

<210> 73
<211> 16
<212> PRT
<213> Homo sapiens

<400> 73

His Met Phe Leu Gln Asp Glu Ile Ile Asp Lys Ser Tyr Thr Pro Ser
1 5 10 15

<210> 74
<211> 17
<212> PRT
<213> Homo sapiens

<400> 74

Val Asp Arg Tyr Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp
1 5 10 15

Arg

<210> 75
<211> 14
<212> PRT
<213> Homo sapiens

<400> 75

Arg Tyr Ile Ser Lys Tyr Glu Leu Asp Lys Ala Phe Ser Asp
1 5 10

<210> 76
<211> 19
<212> PRT
<213> Homo sapiens

<400> 76

Leu Pro Val Gly Arg Thr Val Met Val Asn Ile Glu Asn Pro Glu Gly
1 5 10 15

Ile Pro Val

<210> 77
<211> 20
<212> PRT
<213> Homo sapiens

<400> 77

Leu Pro Val Gly Arg Thr Val Met Val Asn Ile Glu Asn Pro Glu Gly
1 5 10 15

Ile Pro Val Lys
20

<210> 78
<211> 18
<212> PRT
<213> Homo sapiens

<400> 78

Gly Thr Pro His Gly Ile Ile Leu Asp Ser Val Asp Ala Ala Phe Ile
1 5 10 15

Cys Pro

<210> 79
<211> 18
<212> PRT
<213> Homo sapiens

<400> 79

Met Ala Thr Pro Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro
1 5 10 15

Gln Gly

<210> 80
<211> 17
<212> PRT
<213> Homo sapiens

<400> 80

Met Ala Thr Pro Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro
1 5 10 15

Gln

<210> 81
<211> 16
<212> PRT
<213> Homo sapiens

<400> 81

Met Ala Thr Pro Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro
1 5 10 15

<210> 82
<211> 21
<212> PRT
<213> Homo sapiens

<400> 82

Met Ala Thr Pro Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro

1 5 10 15

Gln Gly Pro Met Gln
20

<210> 83
<211> 15
<212> PRT
<213> Homo sapiens

<400> 83

Ala Thr Pro Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro
1 5 10 15

<210> 84
<211> 23
<212> PRT
<213> Homo sapiens

<400> 84

His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val Glu Ser Ala
1 5 10 15

Val Asp Thr Pro Phe Pro Ala
20

<210> 85
<211> 24
<212> PRT
<213> Homo sapiens

<400> 85

His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val Glu Ser Ala
1 5 10 15

Val Asp Thr Pro Phe Pro Ala Gly
20

<210> 86
<211> 22
<212> PRT
<213> Homo sapiens

<400> 86

His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val Glu Ser Ala
1 5 10 15

Val Asp Thr Pro Phe Pro
20

<210> 87
<211> 17
<212> PRT
<213> Homo sapiens

<400> 87

Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser Pro Val
1 5 10 15

Val

<210> 88
<211> 16
<212> PRT
<213> Homo sapiens

<400> 88

Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser Pro Val
1 5 10 15

<210> 89
<211> 17
<212> PRT
<213> Homo sapiens

<400> 89

Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser Pro Val Val
1 5 10 15

Ile

<210> 90
<211> 15
<212> PRT
<213> Homo sapiens

<400> 90

Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser Pro Val
1 5 10 15

<210> 91
<211> 16
<212> PRT
<213> Homo sapiens

<400> 91

Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser Pro Val Val
1 5 10 15

<210> 92
<211> 15
<212> PRT
<213> Homo sapiens

<400> 92

Tyr Asn Ser Tyr Ser Val Ser Asn Ser Glu Lys Asp Ile Met Ala
1 5 10 15

<210> 93
<211> 15
<212> PRT

<213> Homo sapiens

<400> 93

Ala Gly Ser Leu Thr Leu Ser Lys Thr Glu Leu Gly Lys Lys Ala
1 5 10 15

<210> 94
<211> 16
<212> PRT
<213> Homo sapiens

<400> 94

Ala Gly Ser Leu Thr Leu Ser Lys Thr Glu Leu Gly Lys Lys Ala Asp
1 5 10 15

<210> 95
<211> 14
<212> PRT
<213> Homo sapiens

<400> 95

Val Pro Lys Asp Tyr Thr Gly Glu Asp Val Thr Pro Gln Asn
1 5 10

<210> 96
<211> 13
<212> PRT
<213> Homo sapiens

<400> 96

Asp Ser Lys Phe His Gln Ala Ile Asn Asp Ala His Gln
1 5 10

<210> 97
<211> 15
<212> PRT
<213> Homo sapiens

<400> 97

Met Pro Leu Glu Phe Lys Thr Leu Asn Val Leu His Asn Arg Gly
1 5 10 15

<210> 98
<211> 15
<212> PRT
<213> Homo sapiens

<400> 98

Ala Thr Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln
1 5 10 15

<210> 99
<211> 18
<212> PRT
<213> Homo sapiens

<400> 99

Ala Thr Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln Ile
1 5 10 15

Trp Asp

<210> 100
<211> 14
<212> PRT
<213> Homo sapiens

<400> 100

Thr Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln
1 5 10

<210> 101
<211> 17
<212> PRT
<213> Homo sapiens

<400> 101

Ala Thr Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln Ile
1 5 10 15

Trp

<210> 102
<211> 13
<212> PRT
<213> Homo sapiens

<400> 102

Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln
1 5 10

<210> 103
<211> 9
<212> PRT
<213> Homo sapiens

<400> 103

Ile Gln Pro Ile Phe Ala Val Thr Ser
1 5

<210> 104
<211> 9
<212> PRT
<213> Homo sapiens

<400> 104

Val Phe Gly Glu Asp Ser Val Gly Val
1 5

<210> 105
<211> 9
<212> PRT

<213> Homo sapiens

<400> 105

Leu Lys Met Thr Val Val Lys Leu Ile
1 5

<210> 106
<211> 9
<212> PRT
<213> Homo sapiens

<400> 106

Tyr Leu Gln Met Asn Ser Leu Arg Ala
1 5

<210> 107
<211> 9
<212> PRT
<213> Homo sapiens

<400> 107

Tyr Thr Tyr Ser Glu Asn Arg Val Glu
1 5

<210> 108
<211> 9
<212> PRT
<213> Homo sapiens

<400> 108

Tyr Tyr Ser Phe Ala Ser Gln Gln Gln
1 5

<210> 109
<211> 9
<212> PRT
<213> Homo sapiens

<400> 109

Phe Val Pro Ala Lys Val Glu Asp Ser
1 5

<210> 110
<211> 9
<212> PRT
<213> Homo sapiens

<400> 110

Leu His Leu Asp His Asn Gln Ile Ser
1 5

<210> 111
<211> 9
<212> PRT
<213> Homo sapiens

<400> 111

Met Arg Tyr Glu His Ile Asp His Thr
1 5

<210> 112
<211> 9
<212> PRT
<213> Homo sapiens

<400> 112

Phe Leu Gln Asp Glu Ile Ile Asp Lys
1 5

<210> 113
<211> 9
<212> PRT
<213> Homo sapiens

<400> 113

Met Val Asn Ile Glu Asn Pro Glu Gly
1 5

<210> 114
<211> 9
<212> PRT
<213> Homo sapiens

<400> 114

Leu Met Gln Ala Leu Pro Met Gly Ala
1 5

<210> 115
<211> 9
<212> PRT
<213> Homo sapiens

<400> 115

Trp Ala Phe Gln Glu Thr Ser Val Glu
1 5

<210> 116
<211> 9
<212> PRT
<213> Homo sapiens

<400> 116

Tyr Thr Leu Asn Asp Asn Ala Arg Ser
1 5

<210> 117
<211> 9
<212> PRT
<213> Homo sapiens

<400> 117

Tyr Ser Val Ser Asn Ser Glu Lys Asp
1 5

<210> 118
<211> 9
<212> PRT
<213> Homo sapiens

<400> 118

Leu Thr Leu Ser Lys Thr Glu Leu Gly
1 5

<210> 119
<211> 9
<212> PRT
<213> Homo sapiens

<400> 119

Tyr Thr Gly Glu Asp Val Thr Pro Gln
1 5

<210> 120
<211> 9
<212> PRT
<213> Homo sapiens

<400> 120

Phe His Gln Ala Ile Asn Asp Ala His
1 5

<210> 121
<211> 9
<212> PRT
<213> Homo sapiens

<400> 121

Phe Lys Thr Leu Asn Val Leu His Asn
1 5

<210> 122
<211> 9
<212> PRT
<213> Homo sapiens

<400> 122

Ile Gln Val Asp Gly Lys Thr Ile Lys
1 5

<210> 123
<211> 769
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P05107
<309> 1987-08-13
<313> (1)..(769)

<400> 123

Met Leu Gly Leu Arg Pro Pro Leu Leu Ala Leu Val Gly Leu Leu Ser
1 5 10 15

Leu Gly Cys Val Leu Ser Gln Glu Cys Thr Lys Phe Lys Val Ser Ser
20 25 30

Cys Arg Glu Cys Ile Glu Ser Gly Pro Gly Cys Thr Trp Cys Gln Lys
35 40 45

Leu Asn Phe Thr Gly Pro Gly Asp Pro Asp Ser Ile Arg Cys Asp Thr
50 55 60

Arg Pro Gln Leu Leu Met Arg Gly Cys Ala Ala Asp Asp Ile Met Asp
65 70 75 80

Pro Thr Ser Leu Ala Glu Thr Gln Glu Asp His Asn Gly Gly Gln Lys
85 90 95

Gln Leu Ser Pro Gln Lys Val Thr Leu Tyr Leu Arg Pro Gly Gln Ala
100 105 110

Ala Ala Phe Asn Val Thr Phe Arg Arg Ala Lys Gly Tyr Pro Ile Asp
115 120 125

Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu Asp Asp Leu Arg
130 135 140

Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala Leu Asn Glu Ile
145 150 155 160

Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val Asp Lys Thr Val
165 170 175

Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg Asn Pro Cys Pro
180 185 190

Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe Arg His Val Leu
195 200 205

Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu Val Gly Lys Gln
210 215 220

Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly Leu Asp Ala Met
225 230 235 240

Met Gln Val Ala Ala Cys Pro Glu Glu Ile Gly Trp Arg Asn Val Thr
245 250 255

Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His Phe Ala Gly Asp
260 265 270

Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly Arg Cys His Leu
275 280 285

Glu Asp Asn Leu Tyr Lys Arg Ser Asn Glu Phe Asp Tyr Pro Ser Val

290 295 300

Gly Gln Leu Ala His Lys Leu Ala Glu Asn Asn Ile Gln Pro Ile Phe
305 310 315 320

Ala Val Thr Ser Arg Met Val Lys Thr Tyr Glu Lys Leu Thr Glu Ile
325 330 335

Ile Pro Lys Ser Ala Val Gly Glu Leu Ser Glu Asp Ser Ser Asn Val
340 345 350

Val His Leu Ile Lys Asn Ala Tyr Asn Lys Leu Ser Ser Arg Val Phe
355 360 365

Leu Asp His Asn Ala Leu Pro Asp Thr Leu Lys Val Thr Tyr Asp Ser
370 375 380

Phe Cys Ser Asn Gly Val Thr His Arg Asn Gln Pro Arg Gly Asp Cys
385 390 395 400

Asp Gly Val Gln Ile Asn Val Pro Ile Thr Phe Gln Val Lys Val Thr
405 410 415

Ala Thr Glu Cys Ile Gln Glu Gln Ser Phe Val Ile Arg Ala Leu Gly
420 425 430

Phe Thr Asp Ile Val Thr Val Gln Val Leu Pro Gln Cys Glu Cys Arg
435 440 445

Cys Arg Asp Gln Ser Arg Asp Arg Ser Leu Cys His Gly Lys Gly Phe
450 455 460

Leu Glu Cys Gly Ile Cys Arg Cys Asp Thr Gly Tyr Ile Gly Lys Asn
465 470 475 480

Cys Glu Cys Gln Thr Gln Gly Arg Ser Ser Gln Glu Leu Glu Gly Ser
485 490 495

Cys Arg Lys Asp Asn Asn Ser Ile Ile Cys Ser Gly Leu Gly Asp Cys
500 505 510

Val Cys Gly Gln Cys Leu Cys His Thr Ser Asp Val Pro Gly Lys Leu
515 520 525

Ile Tyr Gly Gln Tyr Cys Glu Cys Asp Thr Ile Asn Cys Glu Arg Tyr
530 535 540

Asn Gly Gln Val Cys Gly Gly Pro Gly Arg Gly Leu Cys Phe Cys Gly
545 550 555 560

Lys Cys Arg Cys His Pro Gly Phe Glu Gly Ser Ala Cys Gln Cys Glu
565 570 575

Arg Thr Thr Glu Gly Cys Leu Asn Pro Arg Arg Val Glu Cys Ser Gly
580 585 590

Arg Gly Arg Cys Arg Cys Asn Val Cys Glu Cys His Ser Gly Tyr Gln
595 600 605

Leu Pro Leu Cys Gln Glu Cys Pro Gly Cys Pro Ser Pro Cys Gly Lys
610 615 620

Tyr Ile Ser Cys Ala Glu Cys Leu Lys Phe Glu Lys Gly Pro Phe Gly
625 630 635 640

Lys Asn Cys Ser Ala Ala Cys Pro Gly Leu Gln Leu Ser Asn Asn Pro
645 650 655

Val Lys Gly Arg Thr Cys Lys Glu Arg Asp Ser Glu Gly Cys Trp Val
660 665 670

Ala Tyr Thr Leu Glu Gln Gln Asp Gly Met Asp Arg Tyr Leu Ile Tyr
675 680 685

Val Asp Glu Ser Arg Glu Cys Val Ala Gly Pro Asn Ile Ala Ala Ile
690 695 700

Val Gly Gly Thr Val Ala Gly Ile Val Leu Ile Gly Ile Leu Leu Leu
705 710 715 720

Val Ile Trp Lys Ala Leu Ile His Leu Ser Asp Leu Arg Glu Tyr Arg
725 730 735

Arg Phe Glu Lys Glu Lys Leu Lys Ser Gln Trp Asn Asn Asp Asn Pro
740 745 750

Leu Phe Lys Ser Ala Thr Thr Thr Val Met Asn Pro Lys Phe Ala Glu
755 760 765

Ser

<210> 124
<211> 1070
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P42338
<309> 1995-11-01
<313> (1)..(1070)

<400> 124

Met Cys Phe Ser Phe Ile Met Pro Pro Ala Met Ala Asp Ile Leu Asp
1 5 10 15

Ile Trp Ala Val Asp Ser Gln Ile Ala Ser Asp Gly Ser Ile Pro Val

20 25 30

Asp Phe Leu Leu Pro Thr Gly Ile Tyr Ile Gln Leu Glu Val Pro Arg
35 40 45

Glu Ala Thr Ile Ser Tyr Ile Lys Gln Met Leu Trp Lys Gln Val His
50 55 60

Asn Tyr Pro Met Phe Asn Leu Leu Met Asp Ile Asp Ser Tyr Met Phe
65 70 75 80

Ala Cys Val Asn Gln Thr Ala Val Tyr Glu Glu Leu Glu Asp Glu Thr
85 90 95

Arg Arg Leu Cys Asp Val Arg Pro Phe Leu Pro Val Leu Lys Leu Val
100 105 110

Thr Arg Ser Cys Asp Pro Gly Glu Lys Leu Asp Ser Lys Ile Gly Val
115 120 125

Leu Ile Gly Lys Gly Leu His Glu Phe Asp Ser Leu Lys Asp Pro Glu
130 135 140

Val Asn Glu Phe Arg Arg Lys Met Arg Lys Phe Ser Glu Glu Lys Ile
145 150 155 160

Leu Ser Leu Val Gly Leu Ser Trp Met Asp Trp Leu Lys Gln Thr Tyr
165 170 175

Pro Pro Glu His Glu Pro Ser Ile Pro Glu Asn Leu Glu Asp Lys Leu
180 185 190

Tyr Gly Gly Lys Leu Ile Val Ala Val His Phe Glu Asn Cys Gln Asp
195 200 205

Val Phe Ser Phe Gln Val Ser Pro Asn Met Asn Pro Ile Lys Val Asn
210 215 220

Glu Leu Ala Ile Gln Lys Arg Leu Thr Ile His Gly Lys Glu Asp Glu
225 230 235 240

Val Ser Pro Tyr Asp Tyr Val Leu Gln Val Ser Gly Arg Val Glu Tyr
245 250 255

Val Phe Gly Asp His Pro Leu Ile Gln Phe Gln Tyr Ile Arg Asn Cys
260 265 270

Val Met Asn Arg Ala Leu Pro His Phe Ile Leu Val Glu Cys Cys Lys
275 280 285

Ile Lys Lys Met Tyr Glu Gln Glu Met Ile Ala Ile Glu Ala Ala Ile
290 295 300

Asn Arg Asn Ser Ser Asn Leu Pro Leu Pro Leu Pro Pro Lys Lys Thr
305 310 315 320

Arg Ile Ile Ser His Val Trp Glu Asn Asn Asn Pro Phe Gln Ile Val
325 330 335

Leu Val Lys Gly Asn Lys Leu Asn Thr Glu Glu Thr Val Lys Val His
340 345 350

Val Arg Ala Gly Leu Phe His Gly Thr Glu Leu Leu Cys Lys Thr Ile
355 360 365

Val Ser Ser Glu Val Ser Gly Lys Asn Asp His Ile Trp Asn Glu Pro
370 375 380

Leu Glu Phe Asp Ile Asn Ile Cys Asp Leu Pro Arg Met Ala Arg Leu
385 390 395 400

Cys Phe Ala Val Tyr Ala Val Leu Asp Lys Val Lys Thr Lys Lys Ser
405 410 415

Thr Lys Thr Ile Asn Pro Ser Lys Tyr Gln Thr Ile Arg Lys Ala Gly
420 425 430

Lys Val His Tyr Pro Val Ala Trp Val Asn Thr Met Val Phe Asp Phe
435 440 445

Lys Gly Gln Leu Arg Thr Gly Asp Ile Ile Leu His Ser Trp Ser Ser
450 455 460

Phe Pro Asp Glu Leu Glu Glu Met Leu Asn Pro Met Gly Thr Val Gln
465 470 475 480

Thr Asn Pro Tyr Thr Glu Asn Ala Thr Ala Leu His Val Lys Phe Pro
485 490 495

Glu Asn Lys Lys Gln Pro Tyr Tyr Tyr Pro Pro Phe Asp Lys Ile Ile
500 505 510

Glu Lys Ala Ala Glu Ile Ala Ser Ser Asp Ser Ala Asn Val Ser Ser
515 520 525

Arg Gly Gly Lys Lys Phe Leu Pro Val Leu Lys Glu Ile Leu Asp Arg
530 535 540

Asp Pro Leu Ser Gln Leu Cys Glu Asn Glu Met Asp Leu Ile Trp Thr
545 550 555 560

Leu Arg Gln Asp Cys Arg Glu Ile Phe Pro Gln Ser Leu Pro Lys Leu
565 570 575

Leu Leu Ser Ile Lys Trp Asn Lys Leu Glu Asp Val Ala Gln Leu Gln

580 585 590

Ala Leu Leu Gln Ile Trp Pro Lys Leu Pro Pro Arg Glu Ala Leu Glu
595 600 605

Leu Leu Asp Phe Asn Tyr Pro Asp Gln Tyr Val Arg Glu Tyr Ala Val
610 615 620

Gly Cys Leu Arg Gln Met Ser Asp Glu Glu Leu Ser Gln Tyr Leu Leu
625 630 635 640

Gln Leu Val Gln Val Leu Lys Tyr Glu Pro Phe Leu Asp Cys Ala Leu
645 650 655

Ser Arg Phe Leu Leu Glu Arg Ala Leu Gly Asn Arg Arg Ile Gly Gln
660 665 670

Phe Leu Phe Trp His Leu Arg Ser Glu Val His Ile Pro Ala Val Ser
675 680 685

Val Gln Phe Gly Val Ile Leu Glu Ala Tyr Cys Arg Gly Ser Val Gly
690 695 700

His Met Lys Val Leu Ser Lys Gln Val Glu Ala Leu Asn Lys Leu Lys
705 710 715 720

Thr Leu Asn Ser Leu Ile Lys Leu Asn Ala Val Lys Leu Asn Arg Ala
725 730 735

Lys Gly Lys Glu Ala Met His Thr Cys Leu Lys Gln Ser Ala Tyr Arg
740 745 750

Glu Ala Leu Ser Asp Leu Gln Ser Pro Leu Asn Pro Cys Val Ile Leu
755 760 765

Ser Glu Leu Tyr Val Glu Lys Cys Lys Tyr Met Asp Ser Lys Met Lys
770 775 780

Pro Leu Trp Leu Val Tyr Asn Asn Lys Val Phe Gly Glu Asp Ser Val
785 790 795 800

Gly Val Ile Phe Lys Asn Gly Asp Asp Leu Arg Gln Asp Met Leu Thr
805 810 815

Leu Gln Met Leu Arg Leu Met Asp Leu Leu Trp Lys Glu Ala Gly Leu
820 825 830

Asp Leu Arg Met Leu Pro Tyr Gly Cys Leu Ala Thr Gly Asp Arg Ser
835 840 845

Gly Leu Ile Glu Val Val Ser Thr Ser Glu Thr Ile Ala Asp Ile Gln
850 855 860

Leu Asn Ser Ser Asn Val Ala Ala Ala Ala Ala Phe Asn Lys Asp Ala
865 870 875 880

Leu Leu Asn Trp Leu Lys Glu Tyr Asn Ser Gly Asp Asp Leu Asp Arg
885 890 895

Ala Ile Glu Glu Phe Thr Leu Ser Cys Ala Gly Tyr Cys Val Ala Ser
900 905 910

Tyr Val Leu Gly Ile Gly Asp Arg His Ser Asp Asn Ile Met Val Lys
915 920 925

Lys Thr Gly Gln Leu Phe His Ile Asp Phe Gly His Ile Leu Gly Asn
930 935 940

Phe Lys Ser Lys Phe Gly Ile Lys Arg Glu Arg Val Pro Phe Ile Leu
945 950 955 960

Thr Tyr Asp Phe Ile His Val Ile Gln Gln Gly Lys Thr Gly Asn Thr
965 970 975

Glu Lys Phe Gly Arg Phe Arg Gln Cys Cys Glu Asp Ala Tyr Leu Ile
980 985 990

Leu Arg Arg His Gly Asn Leu Phe Ile Thr Leu Phe Ala Leu Met Leu
995 1000 1005

Thr Ala Gly Leu Pro Glu Leu Thr Ser Val Lys Asp Ile Gln Tyr
1010 1015 1020

Leu Lys Asp Ser Leu Ala Leu Gly Lys Ser Glu Glu Glu Ala Leu
1025 1030 1035

Lys Gln Phe Lys Gln Lys Phe Asp Glu Ala Leu Arg Glu Ser Trp
1040 1045 1050

Thr Thr Lys Val Asn Trp Met Ala His Thr Val Arg Lys Asp Tyr
1055 1060 1065

Arg Ser
1070

<210> 125
<211> 431
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P00749
<309> 1986-07-21
<313> (1)..(431)

<400> 125

Met Arg Ala Leu Leu Ala Arg Leu Leu Leu Cys Val Leu Val Val Ser

1 5 10 15

Asp Ser Lys Gly Ser Asn Glu Leu His Gln Val Pro Ser Asn Cys Asp
20 25 30

Cys Leu Asn Gly Gly Thr Cys Val Ser Asn Lys Tyr Phe Ser Asn Ile
35 40 45

His Trp Cys Asn Cys Pro Lys Lys Phe Gly Gly Gln His Cys Glu Ile
50 55 60

Asp Lys Ser Lys Thr Cys Tyr Glu Gly Asn Gly His Phe Tyr Arg Gly
65 70 75 80

Lys Ala Ser Thr Asp Thr Met Gly Arg Pro Cys Leu Pro Trp Asn Ser
85 90 95

Ala Thr Val Leu Gln Gln Thr Tyr His Ala His Arg Ser Asp Ala Leu
100 105 110

Gln Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Asn Arg
115 120 125

Arg Arg Pro Trp Cys Tyr Val Gln Val Gly Leu Lys Pro Leu Val Gln
130 135 140

Glu Cys Met Val His Asp Cys Ala Asp Gly Lys Lys Pro Ser Ser Pro
145 150 155 160

Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg
165 170 175

Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp
180 185 190

Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val
195 200 205

Cys Gly Gly Ser Leu Met Ser Pro Cys Trp Val Ile Ser Ala Thr His
210 215 220

Cys Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly
225 230 235 240

Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val
245 250 255

Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His
260 265 270

His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys
275 280 285

Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr
290 295 300

Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys
305 310 315 320

Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val
325 330 335

Val Lys Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly
340 345 350

Ser Glu Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys
355 360 365

Thr Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu
370 375 380

Gln Gly Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys
385 390 395 400

Ala Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu
405 410 415

Pro Trp Ile Arg Ser His Thr Lys Glu Glu Asn Gly Leu Ala Leu
420 425 430

<210> 126
<211> 117
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P01764
<309> 1986-07-21
<313> (1)..(117)

<400> 126

Met Glu Phe Gly Leu Ser Trp Leu Phe Leu Val Ala Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Gly
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn

85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Lys
115

<210> 127
<211> 189
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/Q99497
<309> 1997-05-01
<313> (1)..(189)

<400> 127

Met Ala Ser Lys Arg Ala Leu Val Ile Leu Ala Lys Gly Ala Glu Glu
1 5 10 15

Met Glu Thr Val Ile Pro Val Asp Val Met Arg Arg Ala Gly Ile Lys
20 25 30

Val Thr Val Ala Gly Leu Ala Gly Lys Asp Pro Val Gln Cys Ser Arg
35 40 45

Asp Val Val Ile Cys Pro Asp Ala Ser Leu Glu Asp Ala Lys Lys Glu
50 55 60

Gly Pro Tyr Asp Val Val Val Leu Pro Gly Gly Asn Leu Gly Ala Gln
65 70 75 80

Asn Leu Ser Glu Ser Ala Ala Val Lys Glu Ile Leu Lys Glu Gln Glu
85 90 95

Asn Arg Lys Gly Leu Ile Ala Ala Ile Cys Ala Gly Pro Thr Ala Leu
100 105 110

Leu Ala His Glu Ile Gly Phe Gly Ser Lys Val Thr Thr His Pro Leu
115 120 125

Ala Lys Asp Lys Met Met Asn Gly Gly His Tyr Thr Tyr Ser Glu Asn
130 135 140

Arg Val Glu Lys Asp Gly Leu Ile Leu Thr Ser Arg Gly Pro Gly Thr
145 150 155 160

Ser Phe Glu Phe Ala Leu Ala Ile Val Glu Ala Leu Asn Gly Lys Glu
165 170 175

Val Ala Ala Gln Val Lys Ala Pro Leu Val Leu Lys Asp
180 185

<210> 128
<211> 257
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P48556
<309> 1996-02-01
<313> (1)..(257)

<400> 128

Met Tyr Glu Gln Leu Lys Gly Glu Trp Asn Arg Lys Ser Pro Asn Leu
1 5 10 15

Ser Lys Cys Gly Glu Glu Leu Gly Arg Leu Lys Leu Val Leu Leu Glu
20 25 30

Leu Asn Phe Leu Pro Thr Thr Gly Thr Lys Leu Thr Lys Gln Gln Leu
35 40 45

Ile Leu Ala Arg Asp Ile Leu Glu Ile Gly Ala Gln Trp Ser Ile Leu
50 55 60

Arg Lys Asp Ile Pro Ser Phe Glu Arg Tyr Met Ala Gln Leu Lys Cys
65 70 75 80

Tyr Tyr Phe Asp Tyr Lys Glu Gln Leu Pro Glu Ser Ala Tyr Met His
85 90 95

Gln Leu Leu Gly Leu Asn Leu Leu Phe Leu Leu Ser Gln Asn Arg Val
100 105 110

Ala Glu Phe His Thr Glu Leu Glu Arg Leu Pro Ala Lys Asp Ile Gln
115 120 125

Thr Asn Val Tyr Ile Lys His Pro Val Ser Leu Glu Gln Tyr Leu Met
130 135 140

Glu Gly Ser Tyr Asn Lys Val Phe Leu Ala Lys Gly Asn Ile Pro Ala
145 150 155 160

Glu Ser Tyr Thr Phe Phe Ile Asp Ile Leu Leu Asp Thr Ile Arg Asp
165 170 175

Glu Ile Ala Gly Cys Ile Glu Lys Ala Tyr Glu Lys Ile Leu Phe Thr
180 185 190

Glu Ala Thr Arg Ile Leu Phe Phe Asn Thr Pro Lys Lys Met Thr Asp
195 200 205

Tyr Ala Lys Lys Arg Gly Trp Val Leu Gly Pro Asn Asn Tyr Tyr Ser
210 215 220

Phe Ala Ser Gln Gln Gln Lys Pro Glu Asp Thr Thr Ile Pro Ser Thr

225 230 235 240

Glu Leu Ala Lys Gln Val Ile Glu Tyr Ala Arg Gln Leu Glu Met Ile
245 250 255

Val

<210> 129
<211> 569
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P14778
<309> 1990-04-01
<313> (1)..(569)

<400> 129

Met Lys Val Leu Leu Arg Leu Ile Cys Phe Ile Ala Leu Leu Ile Ser
1 5 10 15

Ser Leu Glu Ala Asp Lys Cys Lys Glu Arg Glu Glu Lys Ile Ile Leu
20 25 30

Val Ser Ser Ala Asn Glu Ile Asp Val Arg Pro Cys Pro Leu Asn Pro
35 40 45

Asn Glu His Lys Gly Thr Ile Thr Trp Tyr Lys Asp Asp Ser Lys Thr
50 55 60

Pro Val Ser Thr Glu Gln Ala Ser Arg Ile His Gln His Lys Glu Lys
65 70 75 80

Leu Trp Phe Val Pro Ala Lys Val Glu Asp Ser Gly His Tyr Tyr Cys
85 90 95

Val Val Arg Asn Ser Ser Tyr Cys Leu Arg Ile Lys Ile Ser Ala Lys
100 105 110

Phe Val Glu Asn Glu Pro Asn Leu Cys Tyr Asn Ala Gln Ala Ile Phe
115 120 125

Lys Gln Lys Leu Pro Val Ala Gly Asp Gly Gly Leu Val Cys Pro Tyr
130 135 140

Met Glu Phe Phe Lys Asn Glu Asn Asn Glu Leu Pro Lys Leu Gln Trp
145 150 155 160

Tyr Lys Asp Cys Lys Pro Leu Leu Leu Asp Asn Ile His Phe Ser Gly
165 170 175

Val Lys Asp Arg Leu Ile Val Met Asn Val Ala Glu Lys His Arg Gly
180 185 190

Asn Tyr Thr Cys His Ala Ser Tyr Thr Tyr Leu Gly Lys Gln Tyr Pro
195 200 205

Ile Thr Arg Val Ile Glu Phe Ile Thr Leu Glu Glu Asn Lys Pro Thr
210 215 220

Arg Pro Val Ile Val Ser Pro Ala Asn Glu Thr Met Glu Val Asp Leu
225 230 235 240

Gly Ser Gln Ile Gln Leu Ile Cys Asn Val Thr Gly Gln Leu Ser Asp
245 250 255

Ile Ala Tyr Trp Lys Trp Asn Gly Ser Val Ile Asp Glu Asp Asp Pro
260 265 270

Val Leu Gly Glu Asp Tyr Tyr Ser Val Glu Asn Pro Ala Asn Lys Arg
275 280 285

Arg Ser Thr Leu Ile Thr Val Leu Asn Ile Ser Glu Ile Glu Ser Arg
290 295 300

Phe Tyr Lys His Pro Phe Thr Cys Phe Ala Lys Asn Thr His Gly Ile
305 310 315 320

Asp Ala Ala Tyr Ile Gln Leu Ile Tyr Pro Val Thr Asn Phe Gln Lys
325 330 335

His Met Ile Gly Ile Cys Val Thr Leu Thr Val Ile Ile Val Cys Ser
340 345 350

Val Phe Ile Tyr Lys Ile Phe Lys Ile Asp Ile Val Leu Trp Tyr Arg
355 360 365

Asp Ser Cys Tyr Asp Phe Leu Pro Ile Lys Ala Ser Asp Gly Lys Thr
370 375 380

Tyr Asp Ala Tyr Ile Leu Tyr Pro Lys Thr Val Gly Glu Gly Ser Thr
385 390 395 400

Ser Asp Cys Asp Ile Phe Val Phe Lys Val Leu Pro Glu Val Leu Glu
405 410 415

Lys Gln Cys Gly Tyr Lys Leu Phe Ile Tyr Gly Arg Asp Asp Tyr Val
420 425 430

Gly Glu Asp Ile Val Glu Val Ile Asn Glu Asn Val Lys Lys Ser Arg
435 440 445

Arg Leu Ile Ile Ile Leu Val Arg Glu Thr Ser Gly Phe Ser Trp Leu
450 455 460

Gly Gly Ser Ser Glu Glu Gln Ile Ala Met Tyr Asn Ala Leu Val Gln

465 470 475 480

Asp Gly Ile Lys Val Val Leu Leu Glu Leu Glu Lys Ile Gln Asp Tyr
485 490 495

Glu Lys Met Pro Glu Ser Ile Lys Phe Ile Lys Gln Lys His Gly Ala
500 505 510

Ile Arg Trp Ser Gly Asp Phe Thr Gln Gly Pro Gln Ser Ala Lys Thr
515 520 525

Arg Phe Trp Lys Asn Val Arg Tyr His Met Pro Val Gln Arg Arg Ser
530 535 540

Pro Ser Ser Lys His Gln Leu Leu Ser Pro Ala Thr Lys Glu Lys Leu
545 550 555 560

Gln Arg Glu Ala His Val Pro Leu Gly
565

<210> 130
<211> 376
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/Q06828
<309> 1994-06-01
<313> (1)..(376)

<400> 130

Met Gln Trp Thr Ser Leu Leu Leu Leu Ala Gly Leu Phe Ser Leu Ser
1 5 10 15

Gln Ala Gln Tyr Glu Asp Asp Pro His Trp Trp Phe His Tyr Leu Arg
20 25 30

Ser Gln Gln Ser Thr Tyr Tyr Asp Pro Tyr Asp Pro Tyr Pro Tyr Glu
35 40 45

Thr Tyr Glu Pro Tyr Pro Tyr Gly Val Asp Glu Gly Pro Ala Tyr Thr
50 55 60

Tyr Gly Ser Pro Ser Pro Pro Asp Pro Arg Asp Cys Pro Gln Glu Cys
65 70 75 80

Asp Cys Pro Pro Asn Phe Pro Thr Ala Met Tyr Cys Asp Asn Arg Asn
85 90 95

Leu Lys Tyr Leu Pro Phe Val Pro Ser Arg Met Lys Tyr Val Tyr Phe
100 105 110

Gln Asn Asn Gln Ile Thr Ser Ile Gln Glu Gly Val Phe Asp Asn Ala
115 120 125

Thr Gly Leu Leu Trp Ile Ala Leu His Gly Asn Gln Ile Thr Ser Asp
130 135 140

Lys Val Gly Arg Lys Val Phe Ser Lys Leu Arg His Leu Glu Arg Leu
145 150 155 160

Tyr Leu Asp His Asn Asn Leu Thr Arg Met Pro Gly Pro Leu Pro Arg
165 170 175

Ser Leu Arg Glu Leu His Leu Asp His Asn Gln Ile Ser Arg Val Pro
180 185 190

Asn Asn Ala Leu Glu Gly Leu Glu Asn Leu Thr Ala Leu Tyr Leu Gln
195 200 205

His Asn Glu Ile Gln Glu Val Gly Ser Ser Met Arg Gly Leu Arg Ser
210 215 220

Leu Tyr Leu Leu Asp Leu Ser Tyr Asn His Leu Arg Lys Val Pro Asp
225 230 235 240

Gly Leu Pro Ser Ala Leu Glu Gln Leu Tyr Met Glu His Asn Asn Val
245 250 255

Tyr Thr Val Pro Asp Ser Tyr Phe Arg Gly Ala Pro Lys Leu Leu Tyr
260 265 270

Val Arg Leu Ser His Asn Ser Leu Thr Asn Asn Gly Leu Ala Ser Asn
275 280 285

Thr Phe Asn Ser Ser Ser Leu Leu Glu Leu Asp Leu Ser Tyr Asn Gln
290 295 300

Leu Gln Lys Ile Pro Pro Val Asn Thr Asn Leu Glu Asn Leu Tyr Leu
305 310 315 320

Gln Gly Asn Arg Ile Asn Glu Phe Ser Ile Ser Ser Phe Cys Thr Val
325 330 335

Val Asp Val Val Asn Phe Ser Gln Leu Gln Val Val Arg Leu Asp Gly
340 345 350

Asn Glu Met Lys Arg Ser Ala Met Pro Ala Glu Ala Pro Leu Cys Leu
355 360 365

Arg Leu Ala Ser Leu Ile Glu Ile
370 375

<210> 131
<211> 897
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P32927
<309> 1993-10-01
<313> (1)..(897)

<400> 131

Met Val Leu Ala Gln Gly Leu Leu Ser Met Ala Leu Leu Ala Leu Cys
1 5 10 15

Trp Glu Arg Ser Leu Ala Gly Ala Glu Glu Thr Ile Pro Leu Gln Thr
20 25 30

Leu Arg Cys Tyr Asn Asp Tyr Thr Ser His Ile Thr Cys Arg Trp Ala
35 40 45

Asp Thr Gln Asp Ala Gln Arg Leu Val Asn Val Thr Leu Ile Arg Arg
50 55 60

Val Asn Glu Asp Leu Leu Glu Pro Val Ser Cys Asp Leu Ser Asp Asp
65 70 75 80

Met Pro Trp Ser Ala Cys Pro His Pro Arg Cys Val Pro Arg Arg Cys
85 90 95

Val Ile Pro Cys Gln Ser Phe Val Val Thr Asp Val Asp Tyr Phe Ser
100 105 110

Phe Gln Pro Asp Arg Pro Leu Gly Thr Arg Leu Thr Val Thr Leu Thr
115 120 125

Gln His Val Gln Pro Pro Glu Pro Arg Asp Leu Gln Ile Ser Thr Asp
130 135 140

Gln Asp His Phe Leu Leu Thr Trp Ser Val Ala Leu Gly Ser Pro Gln
145 150 155 160

Ser His Trp Leu Ser Pro Gly Asp Leu Glu Phe Glu Val Val Tyr Lys
165 170 175

Arg Leu Gln Asp Ser Trp Glu Asp Ala Ala Ile Leu Leu Ser Asn Thr
180 185 190

Ser Gln Ala Thr Leu Gly Pro Glu His Leu Met Pro Ser Ser Thr Tyr
195 200 205

Val Ala Arg Val Arg Thr Arg Leu Ala Pro Gly Ser Arg Leu Ser Gly
210 215 220

Arg Pro Ser Lys Trp Ser Pro Glu Val Cys Trp Asp Ser Gln Pro Gly
225 230 235 240

Asp Glu Ala Gln Pro Gln Asn Leu Glu Cys Phe Phe Asp Gly Ala Ala
245 250 255

Val Leu Ser Cys Ser Trp Glu Val Arg Lys Glu Val Ala Ser Ser Val
260 265 270

Ser Phe Gly Leu Phe Tyr Lys Pro Ser Pro Asp Ala Gly Glu Glu Glu
275 280 285

Cys Ser Pro Val Leu Arg Glu Gly Leu Gly Ser Leu His Thr Arg His
290 295 300

His Cys Gln Ile Pro Val Pro Asp Pro Ala Thr His Gly Gln Tyr Ile
305 310 315 320

Val Ser Val Gln Pro Arg Arg Ala Glu Lys His Ile Lys Ser Ser Val
325 330 335

Asn Ile Gln Met Ala Pro Pro Ser Leu Asn Val Thr Lys Asp Gly Asp
340 345 350

Ser Tyr Ser Leu Arg Trp Glu Thr Met Lys Met Arg Tyr Glu His Ile
355 360 365

Asp His Thr Phe Glu Ile Gln Tyr Arg Lys Asp Thr Ala Thr Trp Lys
370 375 380

Asp Ser Lys Thr Glu Thr Leu Gln Asn Ala His Ser Met Ala Leu Pro
385 390 395 400

Ala Leu Glu Pro Ser Thr Arg Tyr Trp Ala Arg Val Arg Val Arg Thr
405 410 415

Ser Arg Thr Gly Tyr Asn Gly Ile Trp Ser Glu Trp Ser Glu Ala Arg
420 425 430

Ser Trp Asp Thr Glu Ser Val Leu Pro Met Trp Val Leu Ala Leu Ile
435 440 445

Val Ile Phe Leu Thr Ile Ala Val Leu Leu Ala Leu Arg Phe Cys Gly
450 455 460

Ile Tyr Gly Tyr Arg Leu Arg Arg Lys Trp Glu Glu Lys Ile Pro Asn
465 470 475 480

Pro Ser Lys Ser His Leu Phe Gln Asn Gly Ser Ala Glu Leu Trp Pro
485 490 495

Pro Gly Ser Met Ser Ala Phe Thr Ser Gly Ser Pro Pro His Gln Gly
500 505 510

Pro Trp Gly Ser Arg Phe Pro Glu Leu Glu Gly Val Phe Pro Val Gly
515 520 525

Phe Gly Asp Ser Glu Val Ser Pro Leu Thr Ile Glu Asp Pro Lys His

530 535 540

Val Cys Asp Pro Pro Ser Gly Pro Asp Thr Thr Pro Ala Ala Ser Asp
545 550 555 560

Leu Pro Thr Glu Gln Pro Pro Ser Pro Gln Pro Gly Pro Pro Ala Ala
565 570 575

Ser His Thr Pro Glu Lys Gln Ala Ser Ser Phe Asp Phe Asn Gly Pro
580 585 590

Tyr Leu Gly Pro Pro His Ser Arg Ser Leu Pro Asp Ile Leu Gly Gln
595 600 605

Pro Glu Pro Pro Gln Glu Gly Gly Ser Gln Lys Ser Pro Pro Pro Gly
610 615 620

Ser Leu Glu Tyr Leu Cys Leu Pro Ala Gly Gly Gln Val Gln Leu Val
625 630 635 640

Pro Leu Ala Gln Ala Met Gly Pro Gly Gln Ala Val Glu Val Glu Arg
645 650 655

Arg Pro Ser Gln Gly Ala Ala Gly Ser Pro Ser Leu Glu Ser Gly Gly
660 665 670

Gly Pro Ala Pro Pro Ala Leu Gly Pro Arg Val Gly Gly Gln Asp Gln
675 680 685

Lys Asp Ser Pro Val Ala Ile Pro Met Ser Ser Gly Asp Thr Glu Asp
690 695 700

Pro Gly Val Ala Ser Gly Tyr Val Ser Ser Ala Asp Leu Val Phe Thr
705 710 715 720

Pro Asn Ser Gly Ala Ser Ser Val Ser Leu Val Pro Ser Leu Gly Leu
725 730 735

Pro Ser Asp Gln Thr Pro Ser Leu Cys Pro Gly Leu Ala Ser Gly Pro
740 745 750

Pro Gly Ala Pro Gly Pro Val Lys Ser Gly Phe Glu Gly Tyr Val Glu
755 760 765

Leu Pro Pro Ile Glu Gly Arg Ser Pro Arg Ser Pro Arg Asn Asn Pro
770 775 780

Val Pro Pro Glu Ala Lys Ser Pro Val Leu Asn Pro Gly Glu Arg Pro
785 790 795 800

Ala Asp Val Ser Pro Thr Ser Pro Gln Pro Glu Gly Leu Leu Val Leu
805 810 815

Gln Gln Val Gly Asp Tyr Cys Phe Leu Pro Gly Leu Gly Pro Gly Pro
820 825 830

Leu Ser Leu Arg Ser Lys Pro Ser Ser Pro Gly Pro Gly Pro Glu Ile
835 840 845

Lys Asn Leu Asp Gln Ala Phe Gln Val Lys Lys Pro Pro Gly Gln Ala
850 855 860

Val Pro Gln Val Pro Val Ile Gln Leu Phe Lys Ala Leu Lys Gln Gln
865 870 875 880

Asp Tyr Leu Ser Leu Pro Pro Trp Glu Val Asn Lys Pro Gly Glu Val
885 890 895

Cys

<210> 132
<211> 261
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/Q60493
<309> 1996-11-01
<313> (1)..(261)

<400> 132

Met Ile Tyr Lys Cys Pro Met Cys Arg Glu Phe Phe Ser Glu Arg Ala
1 5 10 15

Asp Leu Phe Met His Gln Lys Val His Thr Ala Glu Lys Pro His Lys
20 25 30

Cys Asp Lys Cys Asp Lys Gly Phe Phe His Ile Ser Glu Leu His Ile
35 40 45

His Trp Arg Asp His Thr Gly Glu Lys Val Tyr Lys Cys Asp Asp Cys
50 55 60

Gly Lys Asp Phe Ser Thr Thr Thr Lys Leu Asn Arg His Lys Lys Ile
65 70 75 80

His Thr Val Glu Lys Pro Tyr Lys Cys Tyr Glu Cys Gly Lys Ala Phe
85 90 95

Asn Trp Ser Pro His Leu Gln Ile His Met Arg Val His Thr Gly Glu
100 105 110

Lys Pro Tyr Val Cys Ser Glu Cys Gly Arg Gly Phe Ser Asn Ser Ser
115 120 125

Asn Leu Cys Met His Gln Arg Val His Thr Gly Glu Lys Pro Phe Lys

130 135 140

Cys Glu Glu Cys Gly Lys Ala Phe Arg His Thr Ser Ser Leu Cys Met
145 150 155 160

His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Tyr Glu Cys
165 170 175

Gly Lys Ala Phe Ser Gln Ser Ser Ser Leu Cys Ile His Gln Arg Val
180 185 190

His Thr Gly Glu Lys Pro Tyr Arg Cys Cys Gly Cys Gly Lys Ala Phe
195 200 205

Ser Gln Ser Ser Ser Leu Cys Ile His Gln Arg Val His Thr Gly Glu
210 215 220

Lys Pro Phe Lys Cys Asp Glu Cys Gly Lys Ala Phe Ser Gln Ser Thr
225 230 235 240

Ser Leu Cys Ile His Gln Arg Val His Thr Lys Glu Arg Asn His Leu
245 250 255

Lys Ile Ser Val Ile
260

<210> 133
<211> 296
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P04233
<309> 1987-03-20
<313> (1)..(296)

<400> 133

Met His Arg Arg Arg Ser Arg Ser Cys Arg Glu Asp Gln Lys Pro Val
1 5 10 15

Met Asp Asp Gln Arg Asp Leu Ile Ser Asn Asn Glu Gln Leu Pro Met
20 25 30

Leu Gly Arg Arg Pro Gly Ala Pro Glu Ser Lys Cys Ser Arg Gly Ala
35 40 45

Leu Tyr Thr Gly Phe Ser Ile Leu Val Thr Leu Leu Leu Ala Gly Gln
50 55 60

Ala Thr Thr Ala Tyr Phe Leu Tyr Gln Gln Gln Gly Arg Leu Asp Lys
65 70 75 80

Leu Thr Val Thr Ser Gln Asn Leu Gln Leu Glu Asn Leu Arg Met Lys
85 90 95

Leu Pro Lys Pro Pro Lys Pro Val Ser Lys Met Arg Met Ala Thr Pro
100 105 110

Leu Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro Gln Gly Pro Met
115 120 125

Gln Asn Ala Thr Lys Tyr Gly Asn Met Thr Glu Asp His Val Met His
130 135 140

Leu Leu Gln Asn Ala Asp Pro Leu Lys Val Tyr Pro Pro Leu Lys Gly
145 150 155 160

Ser Phe Pro Glu Asn Leu Arg His Leu Lys Asn Thr Met Glu Thr Ile
165 170 175

Asp Trp Lys Val Phe Glu Ser Trp Met His His Trp Leu Leu Phe Glu
180 185 190

Met Ser Arg His Ser Leu Glu Gln Lys Pro Thr Asp Ala Pro Pro Lys
195 200 205

Val Leu Thr Lys Cys Gln Glu Glu Val Ser His Ile Pro Ala Val His
210 215 220

Pro Gly Ser Phe Arg Pro Lys Cys Asp Glu Asn Gly Asn Tyr Leu Pro
225 230 235 240

Leu Gln Cys Tyr Gly Ser Ile Gly Tyr Cys Trp Cys Val Phe Pro Asn
245 250 255

Gly Thr Glu Val Pro Asn Thr Arg Ser Arg Gly His His Asn Cys Ser
260 265 270

Glu Ser Leu Glu Leu Glu Asp Pro Ser Ser Gly Leu Gly Val Thr Lys
275 280 285

Gln Asp Leu Gly Pro Val Pro Met
290 295

<210> 134
<211> 163
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/Q99969
<309> 2000-05-30
<313> (1)..(163)

<400> 134

Met Arg Arg Leu Leu Ile Pro Leu Ala Leu Trp Leu Gly Ala Val Gly
1 5 10 15

Val Gly Val Ala Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val

20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln
35 40 45

Glu Thr Ser Val Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile
50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg
65 70 75 80

Asp Trp Lys Lys Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg
85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly
100 105 110

Arg Leu Val His Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu
115 120 125

Glu His Gln Glu Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp
130 135 140

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser Lys Ala Leu
145 150 155 160

Pro Arg Ser

<210> 135
<211> 2386
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P02751
<309> 1986-07-21
<313> (1)..(2386)

<400> 135

Met Leu Arg Gly Pro Gly Pro Gly Leu Leu Leu Leu Ala Val Gln Cys
1 5 10 15

Leu Gly Thr Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys Arg Gln
20 25 30

Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val Ala Val Ser Gln Ser
35 40 45

Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn Gln Gln
50 55 60

Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys Tyr Gly
65 70 75 80

Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu Glu Thr
85 90 95

Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr
100 105 110

Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala
115 120 125

Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly
130 135 140

Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr
145 150 155 160

Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu
165 170 175

Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly
180 185 190

Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp
195 200 205

Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly Ser Gly Arg Ile Thr
210 215 220

Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp Thr Arg Thr Ser Tyr
225 230 235 240

Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn Arg Gly Asn Leu Leu
245 250 255

Gln Cys Ile Cys Thr Gly Asn Gly Arg Gly Glu Trp Lys Cys Glu Arg
260 265 270

His Thr Ser Val Gln Thr Thr Ser Ser Gly Ser Gly Pro Phe Thr Asp
275 280 285

Val Arg Ala Ala Val Tyr Gln Pro Gln Pro His Pro Gln Pro Pro Pro
290 295 300

Tyr Gly His Cys Val Thr Asp Ser Gly Val Val Tyr Ser Val Gly Met
305 310 315 320

Gln Trp Leu Lys Thr Gln Gly Asn Lys Gln Met Leu Cys Thr Cys Leu
325 330 335

Gly Asn Gly Val Ser Cys Gln Glu Thr Ala Val Thr Gln Thr Tyr Gly
340 345 350

Gly Asn Ser Asn Gly Glu Pro Cys Val Leu Pro Phe Thr Tyr Asn Gly

355 360 365

Arg Thr Phe Tyr Ser Cys Thr Thr Glu Gly Arg Gln Asp Gly His Leu
370 375 380

Trp Cys Ser Thr Thr Ser Asn Tyr Glu Gln Asp Gln Lys Tyr Ser Phe
385 390 395 400

Cys Thr Asp His Thr Val Leu Val Gln Thr Gln Gly Gly Asn Ser Asn
405 410 415

Gly Ala Leu Cys His Phe Pro Phe Leu Tyr Asn Asn His Asn Tyr Thr
420 425 430

Asp Cys Thr Ser Glu Gly Arg Arg Asp Asn Met Lys Trp Cys Gly Thr
435 440 445

Thr Gln Asn Tyr Asp Ala Asp Gln Lys Phe Gly Phe Cys Pro Met Ala
450 455 460

Ala His Glu Glu Ile Cys Thr Thr Asn Glu Gly Val Met Tyr Arg Ile
465 470 475 480

Gly Asp Gln Trp Asp Lys Gln His Asp Met Gly His Met Met Arg Cys
485 490 495

Thr Cys Val Gly Asn Gly Arg Gly Glu Trp Thr Cys Ile Ala Tyr Ser
500 505 510

Gln Leu Arg Asp Gln Cys Ile Val Asp Asp Ile Thr Tyr Asn Val Asn
515 520 525

Asp Thr Phe His Lys Arg His Glu Glu Gly His Met Leu Asn Cys Thr
530 535 540

Cys Phe Gly Gln Gly Arg Gly Arg Trp Lys Cys Asp Pro Val Asp Gln
545 550 555 560

Cys Gln Asp Ser Glu Thr Gly Thr Phe Tyr Gln Ile Gly Asp Ser Trp
565 570 575

Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys Tyr Cys Tyr Gly Arg
580 585 590

Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln Thr Tyr Pro Ser Ser
595 600 605

Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr Pro Ser Gln Pro Asn
610 615 620

Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His Ile Ser Lys
625 630 635 640

Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val Gly Arg Trp Lys Glu
645 650 655

Ala Thr Ile Pro Gly His Leu Asn Ser Tyr Thr Ile Lys Gly Leu Lys
660 665 670

Pro Gly Val Val Tyr Glu Gly Gln Leu Ile Ser Ile Gln Gln Tyr Gly
675 680 685

His Gln Glu Val Thr Arg Phe Asp Phe Thr Thr Thr Ser Thr Ser Thr
690 695 700

Pro Val Thr Ser Asn Thr Val Thr Gly Glu Thr Thr Pro Phe Ser Pro
705 710 715 720

Leu Val Ala Thr Ser Glu Ser Val Thr Glu Ile Thr Ala Ser Ser Phe
725 730 735

Val Val Ser Trp Val Ser Ala Ser Asp Thr Val Ser Gly Phe Arg Val
740 745 750

Glu Tyr Glu Leu Ser Glu Glu Gly Asp Glu Pro Gln Tyr Leu Asp Leu
755 760 765

Pro Ser Thr Ala Thr Ser Val Asn Ile Pro Asp Leu Leu Pro Gly Arg
770 775 780

Lys Tyr Ile Val Asn Val Tyr Gln Ile Ser Glu Asp Gly Glu Gln Ser
785 790 795 800

Leu Ile Leu Ser Thr Ser Gln Thr Thr Ala Pro Asp Ala Pro Pro Asp
805 810 815

Pro Thr Val Asp Gln Val Asp Asp Thr Ser Ile Val Val Arg Trp Ser
820 825 830

Arg Pro Gln Ala Pro Ile Thr Gly Tyr Arg Ile Val Tyr Ser Pro Ser
835 840 845

Val Glu Gly Ser Ser Thr Glu Leu Asn Leu Pro Glu Thr Ala Asn Ser
850 855 860

Val Thr Leu Ser Asp Leu Gln Pro Gly Val Gln Tyr Asn Ile Thr Ile
865 870 875 880

Tyr Ala Val Glu Glu Asn Gln Glu Ser Thr Pro Val Val Ile Gln Gln
885 890 895

Glu Thr Thr Gly Thr Pro Arg Ser Asp Thr Val Pro Ser Pro Arg Asp
900 905 910

Leu Gln Phe Val Glu Val Thr Asp Val Lys Val Thr Ile Met Trp Thr

915 920 925

Pro Pro Glu Ser Ala Val Thr Gly Tyr Arg Val Asp Val Ile Pro Val
930 935 940

Asn Leu Pro Gly Glu His Gly Gln Arg Leu Pro Ile Ser Arg Asn Thr
945 950 955 960

Phe Ala Glu Val Thr Gly Leu Ser Pro Gly Val Thr Tyr Tyr Phe Lys
965 970 975

Val Phe Ala Val Ser His Gly Arg Glu Ser Lys Pro Leu Thr Ala Gln
980 985 990

Gln Thr Thr Lys Leu Asp Ala Pro Thr Asn Leu Gln Phe Val Asn Glu
995 1000 1005

Thr Asp Ser Thr Val Leu Val Arg Trp Thr Pro Pro Arg Ala Gln
1010 1015 1020

Ile Thr Gly Tyr Arg Leu Thr Val Gly Leu Thr Arg Arg Gly Gln
1025 1030 1035

Pro Arg Gln Tyr Asn Val Gly Pro Ser Val Ser Lys Tyr Pro Leu
1040 1045 1050

Arg Asn Leu Gln Pro Ala Ser Glu Tyr Thr Val Ser Leu Val Ala
1055 1060 1065

Ile Lys Gly Asn Gln Glu Ser Pro Lys Ala Thr Gly Val Phe Thr
1070 1075 1080

Thr Leu Gln Pro Gly Ser Ser Ile Pro Pro Tyr Asn Thr Glu Val
1085 1090 1095

Thr Glu Thr Thr Ile Val Ile Thr Trp Thr Pro Ala Pro Arg Ile
1100 1105 1110

Gly Phe Lys Leu Gly Val Arg Pro Ser Gln Gly Gly Glu Ala Pro
1115 1120 1125

Arg Glu Val Thr Ser Asp Ser Gly Ser Ile Val Val Ser Gly Leu
1130 1135 1140

Thr Pro Gly Val Glu Tyr Val Tyr Thr Ile Gln Val Leu Arg Asp
1145 1150 1155

Gly Gln Glu Arg Asp Ala Pro Ile Val Asn Lys Val Val Thr Pro
1160 1165 1170

Leu Ser Pro Pro Thr Asn Leu His Leu Glu Ala Asn Pro Asp Thr
1175 1180 1185

Gly Val Leu Thr Val Ser Trp Glu Arg Ser Thr Thr Pro Asp Ile
1190 1195 1200

Thr Gly Tyr Arg Ile Thr Thr Thr Pro Thr Asn Gly Gln Gln Gly
1205 1210 1215

Asn Ser Leu Glu Glu Val Val His Ala Asp Gln Ser Ser Cys Thr
1220 1225 1230

Phe Asp Asn Leu Ser Pro Gly Leu Glu Tyr Asn Val Ser Val Tyr
1235 1240 1245

Thr Val Lys Asp Asp Lys Glu Ser Val Pro Ile Ser Asp Thr Ile
1250 1255 1260

Ile Pro Ala Val Pro Pro Pro Thr Asp Leu Arg Phe Thr Asn Ile
1265 1270 1275

Gly Pro Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile
1280 1285 1290

Asp Leu Thr Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu
1295 1300 1305

Glu Asp Val Ala Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val
1310 1315 1320

Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val
1325 1330 1335

Ser Ser Val Tyr Glu Gln His Glu Ser Thr Pro Leu Arg Gly Arg
1340 1345 1350

Gln Lys Thr Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp
1355 1360 1365

Ile Thr Ala Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala
1370 1375 1380

Thr Ile Thr Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser
1385 1390 1395

Gly Arg Pro Arg Glu Asp Arg Val Pro His Ser Arg Asn Ser Ile
1400 1405 1410

Thr Leu Thr Asn Leu Thr Pro Gly Thr Glu Tyr Val Val Ser Ile
1415 1420 1425

Val Ala Leu Asn Gly Arg Glu Glu Ser Pro Leu Leu Ile Gly Gln
1430 1435 1440

Gln Ser Thr Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala

1445 1450 1455

Ala Thr Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val
1460 1465 1470

Thr Val Arg Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn
1475 1480 1485

Ser Pro Val Gln Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala
1490 1495 1500

Thr Ile Ser Gly Leu Lys Pro Gly Val Asp Tyr Thr Ile Thr Val
1505 1510 1515

Tyr Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro
1520 1525 1530

Ile Ser Ile Asn Tyr Arg Thr Glu Ile Asp Lys Pro Ser Gln Met
1535 1540 1545

Gln Val Thr Asp Val Gln Asp Asn Ser Ile Ser Val Lys Trp Leu
1550 1555 1560

Pro Ser Ser Ser Pro Val Thr Gly Tyr Arg Val Thr Thr Thr Pro
1565 1570 1575

Lys Asn Gly Pro Gly Pro Thr Lys Thr Lys Thr Ala Gly Pro Asp
1580 1585 1590

Gln Thr Glu Met Thr Ile Glu Gly Leu Gln Pro Thr Val Glu Tyr
1595 1600 1605

Val Val Ser Val Tyr Ala Gln Asn Pro Ser Gly Glu Ser Gln Pro
1610 1615 1620

Leu Val Gln Thr Ala Val Thr Asn Ile Asp Arg Pro Lys Gly Leu
1625 1630 1635

Ala Phe Thr Asp Val Asp Val Asp Ser Ile Lys Ile Ala Trp Glu
1640 1645 1650

Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val Thr Tyr Ser Ser
1655 1660 1665

Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro Asp Gly Glu
1670 1675 1680

Glu Asp Thr Ala Glu Leu Gln Gly Leu Arg Pro Gly Ser Glu Tyr
1685 1690 1695

Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln Pro
1700 1705 1710

Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro Thr Asp Leu
1715 1720 1725

Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr
1730 1735 1740

Pro Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro
1745 1750 1755

Lys Glu Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp
1760 1765 1770

Ser Ser Ser Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr
1775 1780 1785

Glu Val Ser Val Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro
1790 1795 1800

Ala Gln Gly Val Val Thr Thr Leu Glu Asn Val Ser Pro Pro Arg
1805 1810 1815

Arg Ala Arg Val Thr Asp Ala Thr Glu Thr Thr Ile Thr Ile Ser
1820 1825 1830

Trp Arg Thr Lys Thr Glu Thr Ile Thr Gly Phe Gln Val Asp Ala
1835 1840 1845

Val Pro Ala Asn Gly Gln Thr Pro Ile Gln Arg Thr Ile Lys Pro
1850 1855 1860

Asp Val Arg Ser Tyr Thr Ile Thr Gly Leu Gln Pro Gly Thr Asp
1865 1870 1875

Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser
1880 1885 1890

Pro Val Val Ile Asp Ala Ser Thr Ala Ile Asp Ala Pro Ser Asn
1895 1900 1905

Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu Val Ser Trp
1910 1915 1920

Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys Tyr Glu
1925 1930 1935

Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg Pro
1940 1945 1950

Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu
1955 1960 1965

Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu

1970 1975 1980

Pro Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu Val
1985 1990 1995

Thr Leu Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val
2000 2005 2010

Pro Ser Thr Val Gln Lys Thr Pro Phe Val Thr His Pro Gly Tyr
2015 2020 2025

Asp Thr Gly Asn Gly Ile Gln Leu Pro Gly Thr Ser Gly Gln Gln
2030 2035 2040

Pro Ser Val Gly Gln Gln Met Ile Phe Glu Glu His Gly Phe Arg
2045 2050 2055

Arg Thr Thr Pro Pro Thr Thr Ala Thr Pro Ile Arg His Arg Pro
2060 2065 2070

Arg Pro Tyr Pro Pro Asn Val Gly Glu Glu Ile Gln Ile Gly His
2075 2080 2085

Ile Pro Arg Glu Asp Val Asp Tyr His Leu Tyr Pro His Gly Pro
2090 2095 2100

Gly Leu Asn Pro Asn Ala Ser Thr Gly Gln Glu Ala Leu Ser Gln
2105 2110 2115

Thr Thr Ile Ser Trp Ala Pro Phe Gln Asp Thr Ser Glu Tyr Ile
2120 2125 2130

Ile Ser Cys His Pro Val Gly Thr Asp Glu Glu Pro Leu Gln Phe
2135 2140 2145

Arg Val Pro Gly Thr Ser Thr Ser Ala Thr Leu Thr Gly Leu Thr
2150 2155 2160

Arg Gly Ala Thr Tyr Asn Ile Ile Val Glu Ala Leu Lys Asp Gln
2165 2170 2175

Gln Arg His Lys Val Arg Glu Glu Val Val Thr Val Gly Asn Ser
2180 2185 2190

Val Asn Glu Gly Leu Asn Gln Pro Thr Asp Asp Ser Cys Phe Asp
2195 2200 2205

Pro Tyr Thr Val Ser His Tyr Ala Val Gly Asp Glu Trp Glu Arg
2210 2215 2220

Met Ser Glu Ser Gly Phe Lys Leu Leu Cys Gln Cys Leu Gly Phe
2225 2230 2235

Gly Ser Gly His Phe Arg Cys Asp Ser Ser Arg Trp Cys His Asp
2240 2245 2250

Asn Gly Val Asn Tyr Lys Ile Gly Glu Lys Trp Asp Arg Gln Gly
2255 2260 2265

Glu Asn Gly Gln Met Met Ser Cys Thr Cys Leu Gly Asn Gly Lys
2270 2275 2280

Gly Glu Phe Lys Cys Asp Pro His Glu Ala Thr Cys Tyr Asp Asp
2285 2290 2295

Gly Lys Thr Tyr His Val Gly Glu Gln Trp Gln Lys Glu Tyr Leu
2300 2305 2310

Gly Ala Ile Cys Ser Cys Thr Cys Phe Gly Gly Gln Arg Gly Trp
2315 2320 2325

Arg Cys Asp Asn Cys Arg Arg Pro Gly Gly Glu Pro Ser Pro Glu
2330 2335 2340

Gly Thr Thr Gly Gln Ser Tyr Asn Gln Tyr Ser Gln Arg Tyr His
2345 2350 2355

Gln Arg Thr Asn Thr Asn Val Asn Cys Pro Ile Glu Cys Phe Met
2360 2365 2370

Pro Leu Asp Val Gln Ala Asp Arg Glu Asp Ser Arg Glu
2375 2380 2385

<210> 136
<211> 339
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P07858
<309> 1988-08-01
<313> (1)..(339)

<400> 136

Met Trp Gln Leu Trp Ala Ser Leu Cys Cys Leu Leu Val Leu Ala Asn
1 5 10 15

Ala Arg Ser Arg Pro Ser Phe His Pro Val Ser Asp Glu Leu Val Asn
20 25 30

Tyr Val Asn Lys Arg Asn Thr Thr Trp Gln Ala Gly His Asn Phe Tyr
35 40 45

Asn Val Asp Met Ser Tyr Leu Lys Arg Leu Cys Gly Thr Phe Leu Gly
50 55 60

Gly Pro Lys Pro Pro Gln Arg Val Met Phe Thr Glu Asp Leu Lys Leu

65 70 75 80

Pro Ala Ser Phe Asp Ala Arg Glu Gln Trp Pro Gln Cys Pro Thr Ile
85 90 95

Lys Glu Ile Arg Asp Gln Gly Ser Cys Gly Ser Cys Trp Ala Phe Gly
100 105 110

Ala Val Glu Ala Ile Ser Asp Arg Ile Cys Ile His Thr Asn Ala His
115 120 125

Val Ser Val Glu Val Ser Ala Glu Asp Leu Leu Thr Cys Cys Gly Ser
130 135 140

Met Cys Gly Asp Gly Cys Asn Gly Gly Tyr Pro Ala Glu Ala Trp Asn
145 150 155 160

Phe Trp Thr Arg Lys Gly Leu Val Ser Gly Gly Leu Tyr Glu Ser His
165 170 175

Val Gly Cys Arg Pro Tyr Ser Ile Pro Pro Cys Glu His His Val Asn
180 185 190

Gly Ser Arg Pro Pro Cys Thr Gly Glu Gly Asp Thr Pro Lys Cys Ser
195 200 205

Lys Ile Cys Glu Pro Gly Tyr Ser Pro Thr Tyr Lys Gln Asp Lys His
210 215 220

Tyr Gly Tyr Asn Ser Tyr Ser Val Ser Asn Ser Glu Lys Asp Ile Met
225 230 235 240

Ala Glu Ile Tyr Lys Asn Gly Pro Val Glu Gly Ala Phe Ser Val Tyr
245 250 255

Ser Asp Phe Leu Leu Tyr Lys Ser Gly Val Tyr Gln His Val Thr Gly
260 265 270

Glu Met Met Gly Gly His Ala Ile Arg Ile Leu Gly Trp Gly Val Glu
275 280 285

Asn Gly Thr Pro Tyr Trp Leu Val Ala Asn Ser Trp Asn Thr Asp Trp
290 295 300

Gly Asp Asn Gly Phe Phe Lys Ile Leu Arg Gly Gln Asp His Cys Gly
305 310 315 320

Ile Glu Ser Glu Val Val Ala Gly Ile Pro Arg Thr Asp Gln Tyr Trp
325 330 335

Glu Lys Ile

<210> 137
<211> 1249
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P29144
<309> 1992-12-01
<313> (1)..(1249)

<400> 137

Met Ala Thr Ala Ala Thr Glu Glu Pro Phe Pro Phe His Gly Leu Leu
1 5 10 15

Pro Lys Lys Glu Thr Gly Ala Ala Ser Phe Leu Cys Arg Tyr Pro Glu
20 25 30

Tyr Asp Gly Arg Gly Val Leu Ile Ala Val Leu Asp Thr Gly Val Asp
35 40 45

Pro Gly Ala Pro Gly Met Gln Val Thr Thr Asp Gly Lys Pro Lys Ile
50 55 60

Val Asp Ile Ile Asp Thr Thr Gly Ser Gly Asp Val Asn Thr Ala Thr
65 70 75 80

Glu Val Glu Pro Lys Asp Gly Glu Ile Val Gly Leu Ser Gly Arg Val
85 90 95

Leu Lys Ile Pro Ala Ser Trp Thr Asn Pro Ser Gly Lys Tyr His Ile
100 105 110

Gly Ile Lys Asn Gly Tyr Asp Phe Tyr Pro Lys Ala Leu Lys Glu Arg
115 120 125

Ile Gln Lys Glu Arg Lys Glu Lys Ile Trp Asp Pro Val His Arg Val
130 135 140

Ala Leu Ala Glu Ala Cys Arg Lys Gln Glu Glu Phe Asp Val Ala Asn
145 150 155 160

Asn Gly Ser Ser Gln Ala Asn Lys Leu Ile Lys Glu Glu Leu Gln Ser
165 170 175

Gln Val Glu Leu Leu Asn Ser Phe Glu Lys Lys Tyr Ser Asp Pro Gly
180 185 190

Pro Val Tyr Asp Cys Leu Val Trp His Asp Gly Glu Val Trp Arg Ala
195 200 205

Cys Ile Asp Ser Asn Glu Asp Gly Asp Leu Ser Lys Ser Thr Val Leu
210 215 220

Arg Asn Tyr Lys Glu Ala Gln Glu Tyr Gly Ser Phe Gly Thr Ala Glu

225 230 235 240

Met Leu Asn Tyr Ser Val Asn Ile Tyr Asp Asp Gly Asn Leu Leu Ser
245 250 255

Ile Val Thr Ser Gly Gly Ala His Gly Thr His Val Ala Ser Ile Ala
260 265 270

Ala Gly His Phe Pro Glu Glu Pro Glu Arg Asn Gly Val Ala Pro Gly
275 280 285

Ala Gln Ile Leu Ser Ile Lys Ile Gly Asp Thr Arg Leu Ser Thr Met
290 295 300

Glu Thr Gly Thr Gly Leu Ile Arg Ala Met Ile Glu Val Ile Asn His
305 310 315 320

Lys Cys Asp Leu Val Asn Tyr Ser Tyr Gly Glu Ala Thr His Trp Pro
325 330 335

Asn Ser Gly Arg Ile Cys Glu Val Ile Asn Glu Ala Val Trp Lys His
340 345 350

Asn Ile Ile Tyr Val Ser Ser Ala Gly Asn Asn Gly Pro Cys Leu Ser
355 360 365

Thr Val Gly Cys Pro Gly Gly Thr Thr Ser Ser Val Ile Gly Val Gly
370 375 380

Ala Tyr Val Ser Pro Asp Met Met Val Ala Glu Tyr Ser Leu Arg Glu
385 390 395 400

Lys Leu Pro Ala Asn Gln Tyr Thr Trp Ser Ser Arg Gly Pro Ser Ala
405 410 415

Asp Gly Ala Leu Gly Val Ser Ile Ser Ala Pro Gly Gly Ala Ile Ala
420 425 430

Ser Val Pro Asn Trp Thr Leu Arg Gly Thr Gln Leu Met Asn Gly Thr
435 440 445

Ser Met Ser Ser Pro Asn Ala Cys Gly Gly Ile Ala Leu Ile Leu Ser
450 455 460

Gly Leu Lys Ala Asn Asn Ile Asp Tyr Thr Val His Ser Val Arg Arg
465 470 475 480

Ala Leu Glu Asn Thr Ala Val Lys Ala Asp Asn Ile Glu Val Phe Ala
485 490 495

Gln Gly His Gly Ile Ile Gln Val Asp Lys Ala Tyr Asp Tyr Leu Val
500 505 510

Gln Asn Thr Ser Phe Ala Asn Lys Leu Gly Phe Thr Val Thr Val Gly
515 520 525

Asn Asn Arg Gly Ile Tyr Leu Arg Asp Pro Val Gln Val Ala Ala Pro
530 535 540

Ser Asp His Gly Val Gly Ile Glu Pro Val Phe Pro Glu Asn Thr Glu
545 550 555 560

Asn Ser Glu Lys Ile Ser Leu Gln Leu His Leu Ala Leu Thr Ser Asn
565 570 575

Ser Ser Trp Val Gln Cys Pro Ser His Leu Glu Leu Met Asn Gln Cys
580 585 590

Arg His Ile Asn Ile Arg Val Asp Pro Arg Gly Leu Arg Glu Gly Leu
595 600 605

His Tyr Thr Glu Val Cys Gly Tyr Asp Ile Ala Ser Pro Asn Ala Gly
610 615 620

Pro Leu Phe Arg Val Pro Ile Thr Ala Val Ile Ala Ala Lys Val Asn
625 630 635 640

Glu Ser Ser His Tyr Asp Leu Ala Phe Thr Asp Val His Phe Lys Pro
645 650 655

Gly Gln Ile Arg Arg His Phe Ile Glu Val Pro Glu Gly Ala Thr Trp
660 665 670

Ala Glu Val Thr Val Cys Ser Cys Ser Ser Glu Val Ser Ala Lys Phe
675 680 685

Val Leu His Ala Val Gln Leu Val Lys Gln Arg Ala Tyr Arg Ser His
690 695 700

Glu Phe Tyr Lys Phe Cys Ser Leu Pro Glu Lys Gly Thr Leu Thr Glu
705 710 715 720

Ala Phe Pro Val Leu Gly Gly Lys Ala Ile Glu Phe Cys Ile Ala Arg
725 730 735

Trp Trp Ala Ser Leu Ser Asp Val Asn Ile Asp Tyr Thr Ile Ser Phe
740 745 750

His Gly Ile Val Cys Thr Ala Pro Gln Leu Asn Ile His Ala Ser Glu
755 760 765

Gly Ile Asn Arg Phe Asp Val Gln Ser Ser Leu Lys Tyr Glu Asp Leu
770 775 780

Ala Pro Cys Ile Thr Leu Lys Asn Trp Val Gln Thr Leu Arg Pro Val

785 790 795 800

Ser Ala Lys Thr Lys Pro Leu Gly Ser Arg Asp Val Leu Pro Asn Asn
805 810 815

Arg Gln Leu Tyr Glu Met Val Leu Thr Tyr Asn Phe His Gln Pro Lys
820 825 830

Ser Gly Glu Val Thr Pro Ser Cys Pro Leu Leu Cys Glu Leu Leu Tyr
835 840 845

Glu Ser Glu Phe Asp Ser Gln Leu Trp Ile Ile Phe Asp Gln Asn Lys
850 855 860

Arg Gln Met Gly Ser Gly Asp Ala Tyr Pro His Gln Tyr Ser Leu Lys
865 870 875 880

Leu Glu Lys Gly Asp Tyr Thr Ile Arg Leu Gln Ile Arg His Glu Gln
885 890 895

Ile Ser Asp Leu Glu Arg Leu Lys Asp Leu Pro Phe Ile Val Ser His
900 905 910

Arg Leu Ser Asn Thr Leu Ser Leu Asp Ile His Glu Asn His Ser Phe
915 920 925

Ala Leu Leu Gly Lys Lys Lys Ser Ser Asn Leu Thr Leu Pro Pro Lys
930 935 940

Tyr Asn Gln Pro Phe Phe Val Thr Ser Leu Pro Asp Asp Lys Ile Pro
945 950 955 960

Lys Gly Ala Gly Pro Gly Cys Tyr Leu Ala Gly Ser Leu Thr Leu Ser
965 970 975

Lys Thr Glu Leu Gly Lys Lys Ala Asp Val Ile Pro Val His Tyr Tyr
980 985 990

Leu Ile Pro Pro Pro Thr Lys Thr Lys Asn Gly Ser Lys Asp Lys Glu
995 1000 1005

Lys Asp Ser Glu Lys Glu Lys Asp Leu Lys Glu Glu Phe Thr Glu
1010 1015 1020

Ala Leu Arg Asp Leu Lys Ile Gln Trp Met Thr Lys Leu Asp Ser
1025 1030 1035

Ser Asp Ile Tyr Asn Glu Leu Lys Glu Thr Tyr Pro Asn Tyr Leu
1040 1045 1050

Pro Leu Tyr Val Ala Arg Leu His Gln Leu Asp Ala Glu Lys Glu
1055 1060 1065

Arg Met Lys Arg Leu Asn Glu Ile Val Asp Ala Ala Asn Ala Val
1070 1075 1080

Ile Ser His Ile Asp Gln Thr Ala Leu Ala Val Tyr Ile Ala Met
1085 1090 1095

Lys Thr Asp Pro Arg Pro Asp Ala Ala Thr Ile Lys Asn Asp Met
1100 1105 1110

Asp Lys Gln Lys Ser Thr Leu Val Asp Ala Leu Cys Arg Lys Gly
1115 1120 1125

Cys Ala Leu Ala Asp His Leu Leu His Thr Gln Ala Gln Asp Gly
1130 1135 1140

Ala Ile Ser Thr Asp Ala Glu Gly Lys Glu Glu Glu Gly Glu Ser
1145 1150 1155

Pro Leu Asp Ser Leu Ala Glu Thr Phe Trp Glu Thr Thr Lys Trp
1160 1165 1170

Thr Asp Leu Phe Asp Asn Lys Val Leu Thr Phe Ala Tyr Lys His
1175 1180 1185

Ala Leu Val Asn Lys Met Tyr Gly Arg Gly Leu Lys Phe Ala Thr
1190 1195 1200

Lys Leu Val Glu Glu Lys Pro Thr Lys Glu Asn Trp Lys Asn Cys
1205 1210 1215

Ile Gln Leu Met Lys Leu Leu Gly Trp Thr His Cys Ala Ser Phe
1220 1225 1230

Thr Glu Asn Trp Leu Pro Ile Met Tyr Pro Pro Asp Tyr Cys Val
1235 1240 1245

Phe

<210> 138
<211> 433
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/Q99538
<309> 1997-11-01
<313> (1)..(433)

<400> 138

Met Val Trp Lys Val Ala Val Phe Leu Ser Val Ala Leu Gly Ile Gly
1 5 10 15

Ala Val Pro Ile Asp Asp Pro Glu Asp Gly Gly Lys His Trp Val Val

20 25 30

Ile Val Ala Gly Ser Asn Gly Trp Tyr Asn Tyr Arg His Gln Ala Asp
35 40 45

Ala Cys His Ala Tyr Gln Ile Ile His Arg Asn Gly Ile Pro Asp Glu
50 55 60

Gln Ile Val Val Met Met Tyr Asp Asp Ile Ala Tyr Ser Glu Asp Asn
65 70 75 80

Pro Thr Pro Gly Ile Val Ile Asn Arg Pro Asn Gly Thr Asp Val Tyr
85 90 95

Gln Gly Val Pro Lys Asp Tyr Thr Gly Glu Asp Val Thr Pro Gln Asn
100 105 110

Phe Leu Ala Val Leu Arg Gly Asp Ala Glu Ala Val Lys Gly Ile Gly
115 120 125

Ser Gly Lys Val Leu Lys Ser Gly Pro Gln Asp His Val Phe Ile Tyr
130 135 140

Phe Thr Asp His Gly Ser Thr Gly Ile Leu Val Phe Pro Asn Glu Asp
145 150 155 160

Leu His Val Lys Asp Leu Asn Glu Thr Ile His Tyr Met Tyr Lys His
165 170 175

Lys Met Tyr Arg Lys Met Val Phe Tyr Ile Glu Ala Cys Glu Ser Gly
180 185 190

Ser Met Met Asn His Leu Pro Asp Asn Ile Asn Val Tyr Ala Thr Thr
195 200 205

Ala Ala Asn Pro Arg Glu Ser Ser Tyr Ala Cys Tyr Tyr Asp Glu Lys
210 215 220

Arg Ser Thr Tyr Leu Gly Asp Trp Tyr Ser Val Asn Trp Met Glu Asp
225 230 235 240

Ser Asp Val Glu Asp Leu Thr Lys Glu Thr Leu His Lys Gln Tyr His
245 250 255

Leu Val Lys Ser His Thr Asn Thr Ser His Val Met Gln Tyr Gly Asn
260 265 270

Lys Thr Ile Ser Thr Met Lys Val Met Gln Phe Gln Gly Met Lys Arg
275 280 285

Lys Ala Ser Ser Pro Val Pro Leu Pro Pro Val Thr His Leu Asp Leu
290 295 300

Thr Pro Ser Pro Asp Val Pro Leu Thr Ile Met Lys Arg Lys Leu Met
305 310 315 320

Asn Thr Asn Asp Leu Glu Glu Ser Arg Gln Leu Thr Glu Glu Ile Gln
325 330 335

Arg His Leu Asp Ala Arg His Leu Ile Glu Lys Ser Val Arg Lys Ile
340 345 350

Val Ser Leu Leu Ala Ala Ser Glu Ala Glu Val Glu Gln Leu Leu Ser
355 360 365

Glu Arg Ala Pro Leu Thr Gly His Ser Cys Tyr Pro Glu Ala Leu Leu
370 375 380

His Phe Arg Thr His Cys Phe Asn Trp His Ser Pro Thr Tyr Glu Tyr
385 390 395 400

Ala Leu Arg His Leu Tyr Val Leu Val Asn Leu Cys Glu Lys Pro Tyr
405 410 415

Pro Leu His Arg Ile Lys Leu Ser Met Asp His Val Cys Leu Gly His
420 425 430

Tyr

<210> 139
<211> 342
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/P25105
<309> 1992-05-01
<313> (1)..(342)

<400> 139

Met Glu Pro His Asp Ser Ser His Met Asp Ser Glu Phe Arg Tyr Thr
1 5 10 15

Leu Phe Pro Ile Val Tyr Ser Ile Ile Phe Val Leu Gly Val Ile Ala
20 25 30

Asn Gly Tyr Val Leu Trp Val Phe Ala Arg Leu Tyr Pro Cys Lys Lys
35 40 45

Phe Asn Glu Ile Lys Ile Phe Met Val Asn Leu Thr Met Ala Asp Met
50 55 60

Leu Phe Leu Ile Thr Leu Pro Leu Trp Ile Val Tyr Tyr Gln Asn Gln
65 70 75 80

Gly Asn Trp Ile Leu Pro Lys Phe Leu Cys Asn Val Ala Gly Cys Leu

85 90 95

Phe Phe Ile Asn Thr Tyr Cys Ser Val Ala Phe Leu Gly Val Ile Thr
100 105 110

Tyr Asn Arg Phe Gln Ala Val Thr Arg Pro Ile Lys Thr Ala Gln Ala
115 120 125

Asn Thr Arg Lys Arg Gly Ile Ser Leu Ser Leu Val Ile Trp Val Ala
130 135 140

Ile Val Gly Ala Ala Ser Tyr Phe Leu Ile Leu Asp Ser Thr Asn Thr
145 150 155 160

Val Pro Asp Ser Ala Gly Ser Gly Asn Val Thr Arg Cys Phe Glu His
165 170 175

Tyr Glu Lys Gly Ser Val Pro Val Leu Ile Ile His Ile Phe Ile Val
180 185 190

Phe Ser Phe Phe Leu Val Phe Leu Ile Ile Leu Phe Cys Asn Leu Val
195 200 205

Ile Ile Arg Thr Leu Leu Met Gln Pro Val Gln Gln Gln Arg Asn Ala
210 215 220

Glu Val Lys Arg Arg Ala Leu Trp Met Val Cys Thr Val Leu Ala Val
225 230 235 240

Phe Ile Ile Cys Phe Val Pro His His Val Val Gln Leu Pro Trp Thr
245 250 255

Leu Ala Glu Leu Gly Phe Gln Asp Ser Lys Phe His Gln Ala Ile Asn
260 265 270

Asp Ala His Gln Val Thr Leu Cys Leu Leu Ser Thr Asn Cys Val Leu
275 280 285

Asp Pro Val Ile Tyr Cys Phe Leu Thr Lys Lys Phe Arg Lys His Leu
290 295 300

Thr Glu Lys Phe Tyr Ser Met Arg Ser Ser Arg Lys Cys Ser Arg Ala
305 310 315 320

Thr Thr Asp Thr Val Thr Glu Val Val Val Pro Phe Asn Gln Ile Pro
325 330 335

Gly Asn Ser Leu Lys Asn
340

<210> 140
<211> 359
<212> PRT

<213> Homo sapiens

<300>
<308> Swissprot/Q92187
<309> 1997-11-01
<313> (1)..(359)

<400> 140

Met Arg Ser Ile Arg Lys Arg Trp Thr Ile Cys Thr Ile Ser Leu Leu
1 5 10 15

Leu Ile Phe Tyr Lys Thr Lys Glu Ile Ala Arg Thr Glu Glu His Gln
20 25 30

Glu Thr Gln Leu Ile Gly Asp Gly Glu Leu Ser Leu Ser Arg Ser Leu
35 40 45

Val Asn Ser Ser Asp Lys Ile Ile Arg Lys Ala Gly Ser Ser Ile Phe
50 55 60

Gln His Asn Val Glu Gly Trp Lys Ile Asn Ser Ser Leu Val Leu Glu
65 70 75 80

Ile Arg Lys Asn Ile Leu Arg Phe Leu Asp Ala Glu Arg Asp Val Ser
85 90 95

Val Val Lys Ser Ser Phe Lys Pro Gly Asp Val Ile His Tyr Val Leu
100 105 110

Asp Arg Arg Arg Thr Leu Asn Ile Ser His Asp Leu His Ser Leu Leu
115 120 125

Pro Glu Val Ser Pro Met Lys Asn Arg Arg Phe Lys Thr Cys Ala Val
130 135 140

Val Gly Asn Ser Gly Ile Leu Leu Asp Ser Glu Cys Gly Lys Glu Ile
145 150 155 160

Asp Ser His Asn Phe Val Ile Arg Cys Asn Leu Ala Pro Val Val Glu
165 170 175

Phe Ala Ala Asp Val Gly Thr Lys Ser Asp Phe Ile Thr Met Asn Pro
180 185 190

Ser Val Val Gln Arg Ala Phe Gly Gly Phe Arg Asn Glu Ser Asp Arg
195 200 205

Glu Lys Phe Val His Arg Leu Ser Met Leu Asn Asp Ser Val Leu Trp
210 215 220

Ile Pro Ala Phe Met Val Lys Gly Gly Glu Lys His Val Glu Trp Val
225 230 235 240

Asn Ala Leu Ile Leu Lys Asn Lys Leu Lys Val Arg Thr Ala Tyr Pro

245 250 255

Ser Leu Arg Leu Ile His Ala Val Arg Gly Tyr Trp Leu Thr Asn Lys
260 265 270

Val Pro Ile Lys Arg Pro Ser Thr Gly Leu Leu Met Tyr Thr Leu Ala
275 280 285

Thr Arg Phe Cys Asp Glu Ile His Leu Tyr Gly Phe Trp Pro Phe Pro
290 295 300

Lys Asp Leu Asn Gly Lys Ala Val Lys Tyr His Tyr Tyr Asp Asp Leu
305 310 315 320

Lys Tyr Arg Tyr Phe Ser Asn Ala Ser Pro His Arg Met Pro Leu Glu
325 330 335

Phe Lys Thr Leu Asn Val Leu His Asn Arg Gly Ala Leu Lys Leu Thr
340 345 350

Thr Gly Lys Cys Val Lys Gln
355

<210> 141
<211> 218
<212> PRT
<213> Homo sapiens

<300>
<308> Swissprot/Q15907
<309> 1998-07-15
<313> (1)..(218)

<400> 141

Met Gly Thr Arg Asp Asp Glu Tyr Asp Tyr Leu Phe Lys Val Val Leu
1 5 10 15

Ile Gly Asp Ser Gly Val Gly Lys Ser Asn Leu Leu Ser Arg Phe Thr
20 25 30

Arg Asn Glu Phe Asn Leu Glu Ser Lys Ser Thr Ile Gly Val Glu Phe
35 40 45

Ala Thr Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln Ile
50 55 60

Trp Asp Thr Ala Gly Gln Glu Arg Tyr Arg Ala Ile Thr Ser Ala Tyr
65 70 75 80

Tyr Arg Gly Ala Val Gly Ala Leu Leu Val Tyr Asp Ile Ala Lys His
85 90 95

Leu Thr Tyr Glu Asn Val Glu Arg Trp Leu Lys Glu Leu Arg Asp His
100 105 110

Ala Asp Ser Asn Ile Val Ile Met Leu Val Gly Asn Lys Ser Asp Leu
115 120 125

Arg His Leu Arg Ala Val Pro Thr Asp Glu Ala Arg Ala Phe Ala Glu
130 135 140

Lys Asn Asn Leu Ser Phe Ile Glu Thr Ser Ala Leu Asp Ser Thr Asn
145 150 155 160

Val Glu Glu Ala Phe Lys Asn Ile Leu Thr Glu Ile Tyr Arg Ile Val
165 170 175

Ser Gln Lys Gln Ile Ala Asp Arg Ala Ala His Asp Glu Ser Pro Gly
180 185 190

Asn Asn Val Val Asp Ile Ser Val Pro Pro Thr Thr Asp Gly Gln Lys
195 200 205

Pro Asn Lys Leu Gln Cys Cys Gln Asn Leu
210 215